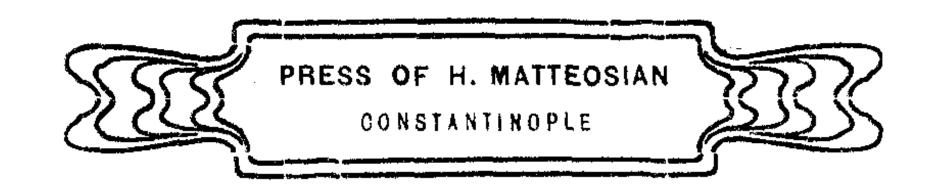
# ROBERT COLLEGE

## CONSTANTINOPLE

(FOUNDED 1863)

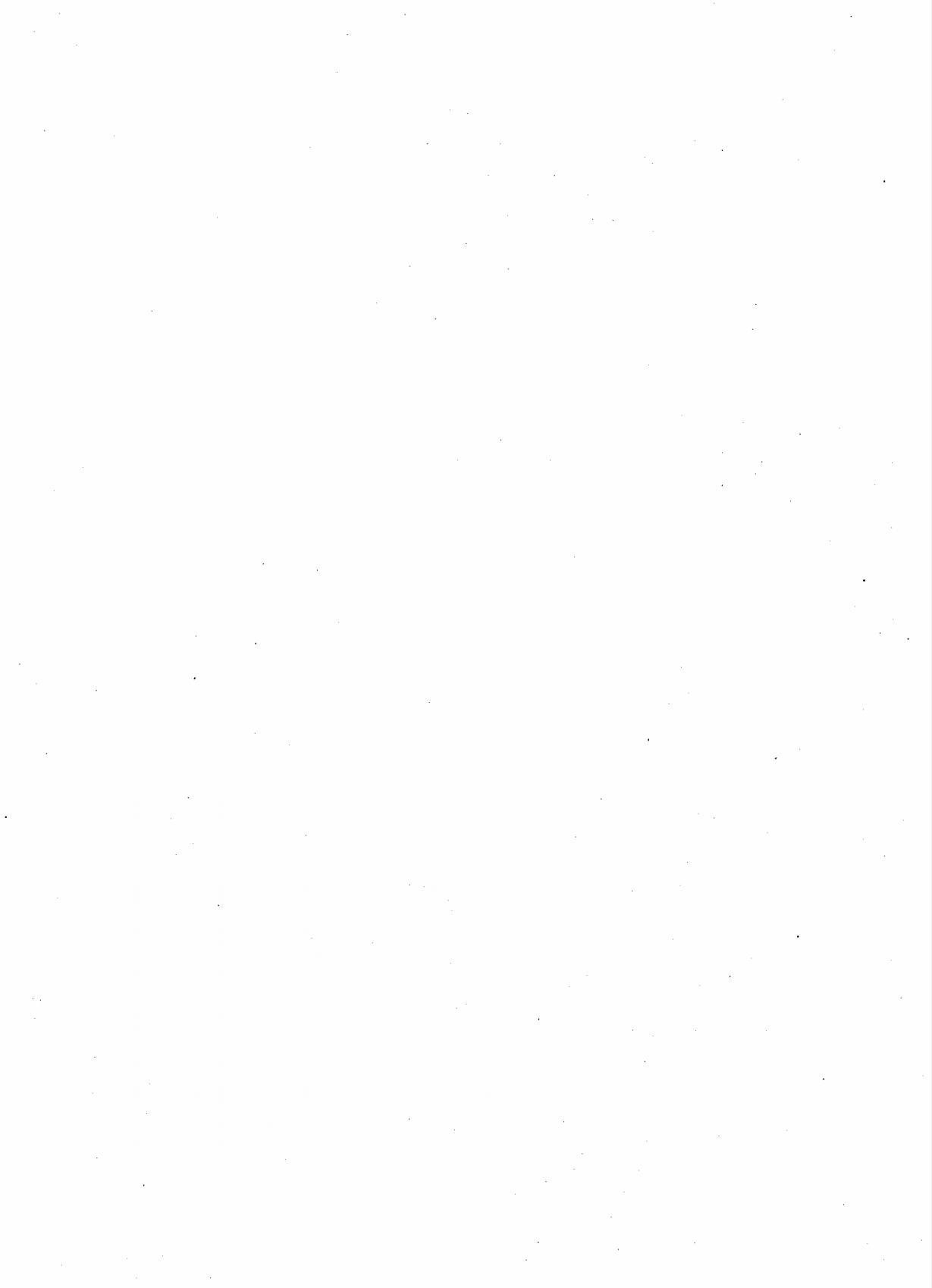


CATALOGUE 1922



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## CALENDAR

## 1922 - 23

Entrance Examinations		September	7, 8, 9,	1922
Registration		September	12, 13,	"
College Opens	Wednesday,	September	13	"
First Semester Examinations		January	1-10,	1923
Christmas Vacation Begins	Wednesday,	January	10,	"
Second Semester Opens	Monday,	January	22,	11
Founders' Day	Friday,	March	23,	"
Easter Vacation Begins	Wednesday,	April	4,	"
Easter Vacation Ends	Monday,	April	16,	"
Senior Examinations Begin	Tuesday,	May	29,	"
Regular Examinations		June	4-12,	17
Commencement Day	Wednesday,	June	13,	n
Spring Entrance Examinations		June 27,	28, 29,	v

#### 1923 - 24

Entrance Examinations		September 6,	7, 8,	1923
Registration		September 1	1, 12,	n
College Opens	Wednesday,	September	12,	"

## BOARD OF TRUSTEES

CLEVELAND H. DODGE, *President and Acting Treasurer*. 99 John Street, New York.

ROBERT W. De FOREST, Vice-President. 30 Broad Street, New York.

WILLIAM SLOANE.

5th Ave. and 47th Street, New York.

Mrs. JOHN S. KENNEDY.
400 Park Ave., New York.

STEPHEN BAKER.

40 Wall Street, New York.

Rev. HENRY SLOANE COFFIN, D.D.

129 East 71st Street, New York.

CHARLES R. CRANE.

31 West 12th Street, New York.

FREDERICK H. SCHAUFFLER.

18 East 41st Street, New York.

OFFICE of the BOARD of TRUSTEES

18 East 41st Street, New York City.

ALBERT W. STAUB, *Executive Secretary*.

Farmers Loan and Trust Company of New York, Depository.

This institution is incorporated in the State of New York, and its corporate name is 'THE TRUSTEES OF ROBERT COLLEGE OF CONSTANTINOPLE."

#### OFFICERS OF ADMINISTRATION

President. CALEB FRANK GATES, D.D., L L D. Vice-President and Principal GEORGE HERBERT HUNTINGTON, A.B., B.D. of the Academy. ERNEST BRADLEE WATSON, Ph.D. Dean of the Faculty of Arts and Sciences. LYNN ADOLPHUS SCIPIO, M.E. Dean of the Engineering School. BERTRAM VAN DYCK POST, M.D. College Physician and Curator of the Museum. J. EDWARD TODD, A.B. Bursar. CLARENCE R. JOHNSON, A.M. Registrar and Secretary of the Faculty Assistant Registrar. THEODORE HARALAMBIDES, A.B. Librarian. CASPAR HOVANNES TUYSUZIAN, A.B. HAROLD LORAIN SCOTT, A.M. Head Master of Theodorous Hall. STEPHEN ELLIOTT BALCH, Superintendent of Buildings and Grounds. Registrar of the Academy. JOHN KOTY, A.B. LEON DJEDJIZIAN, A.B. Assistant of the Bursar. Assistant to the Dean of the College. MIHERTAD O. BOYADJIAN, B.S. Secretary of the Dean of the Engineering School. ANESTES SARRAFOGLOU, Secretary to the President. OLIVE BARSTOW, HENRIETTA M. BREWSTER, Secretary to the Bursar. Secretary of the Y.M.C.A. DAVID D. BAKER, A.B. Resident Hospital Nurse. ELIZABETH S. FROST, Assistant Nurse. NELLIE LOUISE ESTEY, Mrs. KATHARINE HELEN FREWEN, Matron in Anderson Hall. Matron in Theodorus Hall. Mrs. ALICE. W. MANNING, Matron in Hamlin Hall. Mrs. OLIVIA THOMPSON, Assistant in the Book Store. HAGOP COSTIKIAN, B.S.

#### FACULTY AND INSTRUCTORS

**CALEB FRANK GATES**;

President and Professor of Philosophy.

A.B., Beloit 1877, B.D., Chicago Theol. Sem. 1881,

D.D., Knox 1897, LL. D., Edinburgh 1899.

\*GEORGE HERBERT HUNTINGTON,

Vice-President and Principal of the Academy.

A.B., Williams, 1900,

B.D., Hartford Theol. Sem. 1907,

Columbia University 1914 1915,

and Union Seminary.

Professor Emeritus of Rhetoric.

·CHARLES ANDERSON, A.B, Hamilton 1869,

B.D., Auburn and Andover Theol. Sem.,

D.D., Temple College 1901.

HAGOPOS HAMPARTZOUM DJEDJIZIAN, Professor Emeritus of the Armenian A.B., Robert College 1868, A.M., 1877.

Language and Literature.

BERTRAM VAN DYCK POST,

A.B., *Princeton* 1893.

M.D., Syrian Protestant College 1900.

College Physician, Professor of Biology and Physical Culture, and Curator of

the Museums.

HENRI AUGUSTE REYMOND,

Ecole Normal de Neuchatel, 1879.

Professor of the French Language and Literature.

FREDERICK WILHELM KUNICK,

Moravian Seminary, 1898.

Professor of the German Language and Literature.

CHARLES EDWARD ESTES, A.B., Dartmouth 1905.

Professor of Music and College Organist.

ERNEST BRADLEE WATSON,

A.B., Dartmouth 1902, A.M., Harvard 1910,

Ph.D., Harvard 1913

Dean of the Faculty of Arts and Sciences and Professor of the English Language and Literature.

ALFRED LEE MORGAN,

A.B., Oberlin 1900,

A.M., Yale 1905.

Professor of Economics and Head of the Department of Commerce.

HARRY HUNTINGTON BARNUM,

A.B., Amherst 1900,

A.M., University of Chicago 1909.

Professor of Mathematics.

<sup>\*</sup>Absent on leave.

LYNN ADOLPHUS SCIPIO,

A.B., Tri State College 1902,

B.S., (M.E.) Purdue University 1908,

M.E., Purdue University 1910.

ABRAHAM DER HAGOPIAN,

A.B., Robert College 1877, A.M., 1890.

PETER VOICOFF,

A.B., Robert College 1883, A.M., 1890.

EDGAR JACOB FISHER,

A.B., University of Rochester 1906, A.M., University of Rochester 1907,

Ph.D., Columbia University 1911.

HARLAND CLARK WOODS,

B.S., (C.E.,) University of Nebraska 1909,

C.E., University of Colorado 1911.

PAUL HARRISON DIKE,

B.S., Northwestern University 1901,

M.S., Northwestern University 1903,

Ph.D., University of Wisconsin 1911,

Berlin 1905-1906.

HOULOUSSI Y. HUSSEIN,

A.B., Robert College 1903,

Ottoman University, Constantinople, 1910-12,

Sorbonne 1912-13.

FLOYD H. BLACK,

A.B., Corson-Newman College 1911,

S.T.B., Andover Theol. Sem. 1917,

S.T.M., Harvard University 1919.

CLARENCE R. JOHNSON,

A.B., Brown University 1909,

Harvard Divinity School 1909-11, A.M., Brown University 1919.

D. L. SCOLES,

B.S., Berea College 1914,

M.S., Iowa State College 1920.

CHESTER FREDERICK LAY,

B. of Education, Ill. State Normal University,

School of Business Administration, Chicago Univ. 1919-20.

Dean of the Engineering School and Professor of Mechanical Engineering.

Professor of the Armenian Language and Literature.

Professor of the Bulgarian Language and Literature.

Professor of History.

Professor of Civil Engineering.

Professor of Physics.

Professor of Turkish.

Professor of Latin.

Professor of Sociology

Professor of Chemistry.

Professor of Commerce

BERNARD ANTHONY TUBINI,

Professor of Electrical Engineering.

London University, Imperial College of Technology, A.C.Q.L. (Associate City Guilds of London),

A.M I.E.E. (Associate Member of the Institution of Electrical Engineers.)

CONSTAS CONSTANTINOU,
Math. D. Athens 1889, Ph.D. 1907.

Adjunct Professor of the Greek Language and Literature.

\*STAVROS SOTERIOU EMMANUEL, A.B., Robert College 1893, Ph.D., Leipzig University 1914.

Adjunct Professor of the Greek Language and Literature.

KARL TERZAGHI,

Adjunct Professor of Civil Engineering.

Mechanical Engineering and Doctor of Civil Engineering, University Graz, Styria 1905.

HAROLD LORAIN SCOTT,

Ph.B. Denison University 1911, M.A., Columbia University 1917. Assistant Professor of History and Head-Master of Theodorous Hall.

CHARLES CLARENCE COWELL,

Physical Director.

B. Physical Education, Springfield Y.M.C.A. College.

ROBERT CROZIER STUCKERT,

University of Texas 1915.

Superintendent of Elementary Mathematics.

MIHRAN A. DJEDJIZIAN, A.B., Robert College 1893.

Instructor in Armenian.

CASPAR HOVANNES TUYSIZIAN, A.B., Robert College, 1897.

Librarian and Instructor in Armenian.

MAX HERMANN LARSEN, Moravian Seminary 1900.

Instructor in Mathematics.

ARMENAG DER HAGOPIAN, A.B., Edinburgh University 1905.

Instructor in Armenian-

SALIH FERIDOUN BEY,

Instructor in Turkish.

B. Litt. et Sc., Lycée de Galata Serai 1901, Fac. de Droit de Constantinople 1905.

<sup>\*</sup>Absent on leave

JOHN KOTY,

A.B., Robert College 1913.

Registrar of the Academy and

LOUIS LERESCHE.

Teacher's Diploma, Ecole Normale de Lausanne 1904.

ARSHAG SOLAKIAN,

C.E., Robert College 1921.

JOHN GEORGE PIMENIDES, A.B., Robert College 1915.

LEOPOLD BERNER,

Ecole Normal de Neuchatel Brevet de Capacité 1919.

HOMER WOODHULL DAVIS,

A.B., Hamilton College 1916, University of California 1919-20.

CHESTER F. DEAVER,

A.B., Northwestern College 1920. ROY VAN AKEN,

A.B., New York University 1919. ATHANASSIOS HAZAPIS,

JOHN P. NINAS,

EDWARD C. COLCORD, A.B., Oberlin College 1920.

HAZIM ATIF BEY,

B.S., Robert College 1920. Law School, Ottoman University.

ALPHONSE MALLA,

Ecole des Beaux-Arts Constantinople and Paris.

SALIH KERAMET BEY,

B. Litt. et Sc. Lycée de Galata Serai 1903. Diplome de l'Ecole Superieur d'Agriculture 1907, University of Vienna, Faculty of Arts and Sciences 1912-18.

THEODORUS THEODORIDES,

A.B., Robert College 1919.

SIMON COSTIKYAN, B.S., Robert College 1919.

MISS EUTHALIA YANNA,

University of Geneva 1913-14, University of London 1915-19. Instructor in English.

Instructor in French.

Instructor in Civil Engineering.

Instructor in Biology and Physiology.

Instructor in French.

Instructor in English.

Instructor in Geography, English and Science.

Instructor in Arithmetic.

Instructor in Greek.

Instructor in Forge and Foundry.

Assistant in Music.

Instructor in Turkish and Commercial Law.

Instructor in Drawing.

Instructor in Turkish.

Instructor in English.

Instructor in English.

Instructor in English and Arithmetic

GEORGE P. HAYES,

A.B., Swarthmore College 1918.

A.M., Harvard University 1920.

Instructor in English.

CHARLES H. SCRIBNER, JR., A.B., Princeton University 1921.

Instructor in English and Mathematics.

R. E. KENT,

A.B., Princeton University 1921.

Instructor in English.

G. P. MERRIAM, 8.8., Doctmouth College 1921. Instructor in English.

E. O. BRIGGS,
A.B., Dartmouth College 1921.

Instructor in English.

F. STROUD READ,
A.B., University College, London.

Instructor in English.

WALTER F. MYERS, M.E., Lehigh University 1921. Instructor in English.

JOHN ATHANASSIADES, B.S., in Commerce, Robert College 1921.

Instructor in Penmanship.

HARLAN DEWITT CONN,
B.S., Univ. of Illinois, College of Commerce 1922.

Instructor in Commerce.

HAGOP VAHAN MARTAYAN, B.S., Robert College 1915. Instructor in Armenian, English and Geography.

DONALD S. BLAISDELL, B.S., Penn. State College 1920. Instructor in Civil Engineering.

ROBERT PASCHE,
B.S., in M.E., Robert College 1922.

Assistant in Chemistry.

GEORGE SEITANIDES, B.S.E.E., and M.E., Robert College 1922.

Instructor in Electrical Engineering.

GEORGE HARALAMBIDES, B.S., in Commerce, Robert College 1922.

Instructor in Commerce and Arithmetic.

CONSTANTIN P. XENIS, B.S., in M.E., Robert College 1922. Assistant in Physics.

DJELAL-EDDIN,

Instructor in Wood Shop.

## HISTORICAL STATEMENT.

ROBERT COLLEGE was founded by Mr. Christopher Rheinlander Robert, a New York merchant descended from a Huguenot family of Rochelle, France. The idea of founding such an institution in Constantinople was first suggested to Mr. Robert and other philanthropists in New York in 1857 by Messrs. James and William Dwight, graduates of Vale University, and sons of an American missionary in Turkey. They failed to secure the necessary funds, and their plan was abandoned; but Mr. Robert who had visited Constantinople during the Crimean War and had long been interested in the people of Turkey, was so much impressed with the need of such a college that, in 1859, he wrote to Rev. Cyrus Hamlin, D.D., then engaged in educational work in connection with the American Mission, and proposed that he should join him in an effort to raise funds to establish a college at Constantinople, which should offer to young men, without distinction of race or creed, the opportunity to secure a thorough education, equivalent to that obtainable in a firstclass American college and based on the same general principles.

The outbreak of the Civil War in America made it impossible to interest Americans in the project, and left Mr. Robert and Dr. Hamlin to undertake the work alone. Dr. Hamlin returned to Constantinople, and finding serious and unexpected obstacles in the way of erecting a special building, opened the College in a rented house in Bebek, on the Bosphorus, in September 1863. Mr. Robert continued to furnish all the necessary funds until his death in 1878, and then bequeathed to the College one-fifth of his estate. His entire benefactions aggregate about \$400,000. The College has been named after him.

Robert College was incorporated April 24, 1863 under the laws of the State of New York in the United States of America, with a supplementary Act passed by the Legislature, May 4, 1864. The

corporate name of the institution is "The Trustees of Robert College of Constantinople."

The Syrian Protestant College in Beirut was incorporated at the same time and by the same act; both of these institutions now hold their charters under the Board of Regents of the University of the State of New York.

In 1868 an Iradé for the establishment of the Cellege was granted by His Imperial Majesty The Sultan, to the Legation of the United States at Constantinople, securing to the College all the advantages bestowed by the Imperial Government upon educational institutions in Turkey. On July 4, 1869, the corner-stone of the first building erected for the College was laid by the Hon. E. J. Morris, the Amerian Minister, with appropriate ceremonies, on the heights of Roumeli Hissar, the most beautiful site on the shores of the Bosphorus, and the building was completed and occupied in 1871. It has since been named Hamlin Hall.

Since the death of Mr. Robert, other buildings have been erected with funds contributed for that purpose by friends of the College in America, and the endowment fund has been increased by the generous contributions of many other Americans interested in the cause of education in the Near East, notably by the bequest of Mr. John S. Kennedy, who was President of the Board of Trustees from 1895 to 1909. The College is no longer the work of a single individual, but of Christian philanthropists, and it appeals to them for the funds needed for its further development. Recently a Greek alumnus has given £ 2000 towards the erection of a Library, which is to be named after Professor Van Millingen.

The people of the East have responded heartily to this manifestation of American sympathy, and have given the College their confidence and support, so that its influence has been constantly extending in full harmony with the rapid educational development of the country. The object of the Faculty of the College has been, and will continue to be to adapt it to the needs of the people, and to make it, as far as possible, a model Christian College, in which the first object is the development of Christian manliness in the students through the cultivation of the

spiritual as well as the intellectual life. The College has existed for fifty-nine years and its reputation now rests upon the character of its graduates and the work they are doing in the world.

Rev. Cyrus Hamlin, D. D., was President of the College from 1863 to 1877, Rev. George Washburn, D. D., LL. D. from 1878 to 1903, Rev. C. F. Gates, D. D. LL. D. since 1903.

The Engineering College was opened in 1912. Its buildings and equipment were planned by Professor John R. Allen, then Dean of the Department of Mechanical Engineering of the University of Michigan.

The College passed through a most critical period in its history during the World War, 1914—1918. Its work continued without interruption all through the War, but the abnormally high cost of living has made its expenditure exceed its revenues.

#### GROUNDS AND BUILDINGS.

The College has nine school buildings, fourteen residences for professors, and two apartment houses accommodating six families. It owns one hundred and eighteen acres of land situated on one of the most beautiful sites on the shores of the Bosphorus.

HAMLIN HALL was begun in 1869 and finished in 1871, It was the first building erected upon the present site of the College, and was named after the Rev. Cyrus Hamlin, D. D., the first President of the College, who labored untiringly in the erection of the building. A temporary study hall was added in 1873, but this has since been removed. Hamlin Hall has a basement and four stories, and contains a dining room, kitchen, bath rooms, dormitories and teachers' rooms.

ALBERT LONG HALL was known formerly as Science Hall, but it has been renamed in memory of Professor Albert L. Long, D. D., who died in 1901, after twenty-nine years of devoted service to the young men of the Levant. This building which was dedicated during Commencement Week in June, 1892 contains the chemical and physical laboratories, the library and reading room, and a large

assembly hall which is used as the College Chapel and for public meetings. In 1903 the Chapel was furnished with a pipe organ, the gift of Mrs. F. F. Thompson, of New York. This has now been replaced by a new and larger organ, donated by Mr. Cleveland H. Dodge, while the old organ has been installed in Henrietta Washburn Hall.

THEODORUS HALL was the gift of Miss Olivia P. Stokes of New York City and was completed in 1902. This commodious, fire-proof building is devoted to the youngest students of the Academy, and contains well lighted recitation rooms and a study hall, large and airy dormitories, a kitchen, dining rooms and bath rooms. The play-ground is separate from that of the College. The building will accommodate 95 boarders and 50 day students.

THE GYMNASIUM, the gift of Mr. Cleveland H. Dodge and his father, the late Mr. William E. Dodge, was completed in 1904. Like the other buildings, it is constructed of blue limestone quarried on the college grounds, with trimmings of white stone. It is well equipped with American gymnastic apparatus, contains sixteen douche baths, and is provided with lockers for the use of students.

WASHBURN HALL, which was completed in 1906, is the gift of Mrs. William E. Dodge of New York City who also chose its name. This handsome building of blue limestone with white trimmings consists of four stories and a basement and contains a Book Store, a Study Hall which will seat three hundred students, the offices of the President, Dean, Registrar and Treasurer, twelve Class Rooms, the Museum and the Biological Laboratory.

HENRIETTA WASHBURN HALL is the gift of Cleveland H. Dodge, the President of the Board of Trustees. It was named by him in honor of Henrietta Loraine Washburn, the daughter of Cyrus Hamlin, the first president, and the wife of George Washburn the second president of Robert College to commemorate her forty years of loving service to the students of all nationalities. This building provides a home for the social activities and for the Christian associations of the students.

ANDERSON HALL completed in 1913 was built with funds from the John S. Kennedy bequest and is named after Professor Charles Anderson and his wife Abbie Hamlin Anderson as a fitting monument to their long years of devoted service in Robert College. This building is the second unit in the Academy, and houses the more advanced preparatory students.

The ENGINEERING SCHOOL BUILDING was begun in 1911. The West Wing, the Boiler House and one story of the East Wing were completed in 1912 when the work of the Engineering College was opened. The East Wing and the Main Building, which will join the two wings is yet to be completed. This building has not yet received a name.

THE HEATING PLANT for all the College buildings is situated in the Boiler House, and the buildings are connected by tunnels through which run all the pipes and wires for the heating and lighting of the buildings.

The JOHN SLOANE INFIRMARY is the gift of Mr. William Sloane, a Trustee of Robert College, and is dedicated to the memory of his father, who was also a trustee of the College. The walls of this building are constructed to harmonize with the neighboring towers of Roumeli Hissar, and its site overlooking the Bosphorus is exceptionally beautiful and well suited to its purposes. It was opened in 1914, just at the beginning of the World War.

It is worthy of note that by request of the donors, the buildings of Robert College bear the names of men and women who spent their lives in the service of the College.

### OTHER COLLEGE BUILDINGS.

The College has thirteen professors' residences and one for the President, named "Kennedy Lodge". after the donor, the late Mr. John S. Kennedy. Six of the residences for professors were built by Mr. John S. Kennedy, the former President of the Board of

Trustees, and presented by him to the College. Nine of them are located in a beautiful tract of land known as "College Park."

The College also owns two apartment houses situated upon the quay facing the Bosphorus, which provide residences for six families.

The College possesses a substantial stone building for a laundry, which is equipped with hand machinery. Owing to the distance from the city, the college is obliged to launder the clothes of the students.

#### THE LIBRARY.

The Library contains about 18,000 volumes. Contributions have been made to it by Mr. S. H. Corliss of Providence, Mr. B. C. Durfee of Fall River, Mr. Wheelwright of London, Mrs. J. C. Whitin of Whitinsville, in memory of Mr. J. C. Whitin, Mr. C. H. Dodge, the Smithsonian Institution, the British Government, the British Museum, The Universities of Oxford and Cambridge, The Mechanics and Tradesmen's Library of New York, Dr. J. Ackerman Coles, and other institutions and individuals.

The library of Professor Jacoby has been acquired by purchase. It consists of 156 volumes of French and English literature, 403 volumes of German literature, and 514 volumes of German philosophers.

The American War Library Associetion has made a very important donation of about 1700 books which were sent to France for the use of soldiers.

The Library has outgrown the rooms assigned to it, and new books can only be added by displacing old ones. The reading room is too small for the increased number of students. The need of a Library Building has become acute.

The Library and Reading Room are open daily for the use of students and teachers.

#### THE MUSEUM

Upon the erection of Washburn Hall, in 1906, the scientific collections were transferred to the upper floor of that building.

The collections consist of the following:

## 1. Zoological.

Three cases containing 160 mounted specimens of the fishes of the Bosphorus.

Nine cases containing about 800 mounted specimens of birds, chiefly from Turkey. Many of these birds are effectively arranged in groups, such as the characteristic cormorant group, a family of storks in their nest, a groop of vultures about to begin their meal, etc.

Two cases containing about 50 mammals, and 20 amphibians and reptiles, mostly from Turkey. Some of these are in well-arranged groups.

A fine series of vertebrate skulls and skeletons; and a number of models of dissections of animals, enlarged. Also a number of actual dissections, preserved dry.

A collection of mounted crustaceans from the Bosphorus, together with a number of exotic species of starfishes, sea-urchins, and other invertebrates, preserved dry.

A small collection of marine invertebrates, preserved in spirit from the Bay of Naples.

A small cabinet containing butterflies and moths from Turkey, with five drawers of exquisite species from Java, Brazil, and other tropical countries.

A large cabinet of forty drawers, about half filled with beautifully mounted insects of various orders other than Lepidoptera, mostly collected in the Bosphorus region. Except for a portion of the Coleoptera, these insects are as yet undetermined.

#### 2. Botanical.

A splendid herbarium, containing about 13,000 species of flower-

plants and ferns. This includes the herbarium purchased in 1921 from the heirs of the late Mr. Georges Aznavour, which is probably the richest to be found in species of the Bosphorus region, besides containing fine series, collected by well-known botanists, from all the countries of Europe.

#### 3. Geological.

Three cases containing an extensive collection of fossils, both native and foreign.

Three cases containing a well-chosen collection of minerals, some of which were recently presented to the College by the U.S. National Museum, of Washington, D. C.

#### THE JOHN SLOANE INFIRMARY.

The Infirmary, a well equipped building, with twenty-four beds is under the charge of a resident physician and two trained nurses.

The office of the College physician is open to students daily from 7.40 to 8.10 A. M., except Sundays. Medical service is rendered gratuitously to teachers and students residing in the College.

Each boarding student is charged an annual fee of Ltq. 2 for the maintenance of the Infirmary. This fee entitles him to the privileges of the Infirmary (bed, board, nursing, and medical attendance), when ordered by the College physician, for not more than fourteen days during the College year. If this limit is exceeded, 10 piastres gold will be charged for each additional day.

In case of infectious diseases treated in the Infirmary, there is an extra charge of 10 piastres gold par day, in addition to the charges named.

In infectious diseases or other cases which require a special nurse an additional charge covering actual expenses is made.

At the discretion of the College physician, infectious cases may be sent to one of the city hospitals, the expenses in such a case being paid by the student. Boarding students are vaccinated without charge, whenever during their college course vaccination is required; day students are charged 10 piastres each when vaccinated, at a time of general vaccination, by the College physician.

Medicines supplied by the Infirmary may be paid for when obtained, or are charged on account.

#### PHYSICAL EDUCATION AND ATHLETICS.

#### PHYSICAL EXAMINATION.

All students are required to undergo a careful physical examination at the opening of the College year. Specific instruction is given for each individual case, based on the results of the examination. Improvement in hygienic habits is recommended, proper exercises and remedies are suggested and every opportunity provided to practise them, and from time to time students are summoned to check up the result of their efforts to remedy deficiencies. Students found to be afflicted with contagious or immoral diseases are sent away from the College.

The College physician and the physical director are always glad to have students consult them freely concerning any health problem.

#### **GYMNASTICS.**

All students in the Academy, Freshmen and Sophomores in the Collegiate Department, and Preparatory and First Year Engineers, are required to take the work in the regular gymnasium classes.

The courses are graded, systematic, and progressive. The elementary courses aim to remedy common physical defects, to give fundamental training which will develop motor skill, endurance, strength, self-control, and self-confidence, and to provide recreational and athletic opportunities under supervision.

The more advanced courses aim to develop a higher degree of muscular coordination, physical jndgment, and such moral and social

qualities as courage, presence of mind, decision, regard for authority, capacity for leadership, cooperation and self-sacrifice. It is also intended to give a knowledge of and stimulate an interest in forms of activity in which one can participate in later life.

A gymnastic exhibition is given each year on Founders' Day. Students taking gymnasium work must provide themselves with the approved uniform, which consists of a track suit and tennis shoes.

## **ATHLETICS**

The recreational and athletic opportunities are provided under the auspices of the Athletic Association, and include training in the highly organized athletic sports, such as soccer football, baseball, playground baseball, basket ball, court ball, track and field sports, and other forms as facilities become available.

The College awards the privilege of wearing the varsity "R" to such students as merit the letter on account of participation in sports on the College teams.

#### **FEES**

Athletic Asso	ciation	annua	ıl due	s	•	•			Ltq.	1.00
Locker-key fe	e (refi	unded	upon	return	of	key	y)	•	11	.50

#### **RELIGIOUS INSTRUCTION**

Inasmuch as sound principles of education require moral, as well as physical and intellectual development, the College provides religious instruction for its students. This instruction is not controversial, but practical and unsectarian. It does not involve criticism or disparagement of any religion; on the contrary, the religion of every student is treated with respect, and the spirit of reverence and worship is enjoined upon all.

It is considered an essential part of education that students should be acquainted with the history and principles of the Christian religion. In accordance with the constitution of the College, all students are required to attend the morning prayers, with which the work of each day begins on week days. On Sundays, boarders are required to attend the morning religious service.

The study of the Bible is required of all students belonging to the Christian communities. Voluntary classes for Bible Study are held. in connection with the Y.M.C.A. which are open to all students.

#### COLLEGE ASSOCIATIONS AND LITERARY SOCIETIES.

#### LITERARY SOCIETIES.

The students of the various nationalities represented at the College have established, with the consent of the Faculty, several literary societies, the object of which is to promote intellectual culture and literary taste among the members. They hold weekly meetings, which are devoted to debates, or to the reading of essays on literary subjects.

Every association is under the supervision of some member of the staff of instruction, and is subject to the control of the Faculty. These societies are is follows: The Athena Literary Society; The Armenian Students' Union; The Bulgarian Literary Societies; The Hebrew Society "Zadok Khan"; The Ottoman Literary Society; The Russian Literary Society.

Beginning with the Freshman year, each class also has a literary society, whose meetings are conducted in English.

#### Y. M. C. A.

In 1892, consequent upon the visit of Mr.WISHARD, the General Secretary of the Students' V.M.C.A., a Young Men's Christian Association was formed by the students of the College. It is affiliated with the World's Christian Student Federation. In addition to the ordinary work of such an association, it is active in the relief of the poor, and in other benevolent enterprises. Owing to the peculiar circumstances.

of its formation, the Association was divided into four sections on the basis of language, viz., Armenian, Bulgarian, English and Greek, and a Russian section was formed in 1920. These sections meet separately for Bible study, or for the consideration of subjects bearing upon the moral and religious life of the members, and conduct their exercises in their respective languages. Once a month they assemble together in a meeting conducted in English. Sectional reports are made monthly to the General Association on the work of the sections during the year.

In 1913 a trained Y.M.C.A. Secretary was engaged to act as Curator of the Henrietta Washburn Hall and to aid in the activities of the Y.M.C.A.

#### **ALUMNI ASSOCIATION**

The College Alumni Association meets annually during Commencement week. Professor Hussein Bey is President.

Every alumnus is urgently requested to inform the Secretary of the Association, and the College Registrar, of any change in address or occupation. College catalogues will be sent to alumni on application.

#### ATHLETIC ASSOCIATION

The Athletic Association, the membership of which embraces the entire student body of the institution and all teachers who wish to join, has been organized to foster and develop athletics in the College.

## ENTRANCE REQUIREMENTS AND MATRICULATION

#### **APPLICATION**

Applications for admission may be made by letter, written preferably in English or French, and addressed to Robert College, Roumeli Hissar, Constantinople, or in person, on any day except Sunday, from 10 a.m. to 3 p.m., while the College is in session. During the summer vacation, personal applications may be made at the College on Tuesdays and Fridays from 9 to 12 a.m. Students should enter the College at the beginning of the College year, as all places are filled at that time.

Places will be reserved for new students in the order of their applications. The application must be accompanied by a certificate or report from the school in which the applicant studied during the the year preceding his application, showing his conduct and rank in his studies and also by a matriculation fee and a deposit fee, to secure his place. If the student is accepted, the deposit will be applied on his College fees when he enters the College. If for any reason the College does not accept his application, the deposit fee will be returned to him. It should be noted that in case an applicant, who has reserved a place in the College wishes to withdraw his application, the deposit will be returned to him provided a request for the same be received by the Direction before the opening day of the College session. Under no circumstances can the matriculation fee be returned but should the applicant apply for admission at a latter date no further charge for matriculation is made. The applicant should send a medical certificate of good health and a certificate of vaccination not more than five years old; and he should fill out and return the "bulletin" which will be furnished by the College. Allthese conditions must be fulfilled before the application will be considered as filed.

Those applicants who are accepted by the College must present themselves to the Direction for registration at the opening of the College. If they do not appear before the close of the first week of the College year, places will be no longer reserved for them, unless they have been prevented by sickness, or some other unavoidable cause, in which case the Direction must be informed during that week in order that their places may not be given to other applicants.

As the College does not have room to accommodate all who desire enrolment, applicants are advised to apply early.

Students from abroad are required to have guardians, residing in Constantinople, to whom the College may refer.

#### **ADMISSION REQUIREMENTS**

To enter the Academy, the student must have completed his twelfth year, must have a fair knowledge of his own language, and must have a knowledge of the four fundamental operations in Arithmetic. No knowledge of English or French is required for entrance. No student is admitted into the Fifth Class who has not completed his fourteenth year.

Students who are already enrolled in the College, if they wish to continue their course the following year must apply for registration before the close of the current College year, and pay the usual deposit fee to secure a place for the following year.

## CLOTHING, BEDDING, AND LINEN.

Clothing and bedding are not provided by the College. Each student is expected to come provided with suitable clothing; also with one mattress, six sheets, one pillow, six pillow cases, three flannel blankets, six table napkins, six towels, a bag for soiled clothing, and a rug to be placed before his bed. All linen should be marked with the laundry number assigned the student, in plain figures and with marking ink, in order to prevent loss and make indentification easy. Parents are requested to see that this is done before the student comes to the College. The student is required to furnish his own suit and shoes for gymnasium work. Parents and guardians are requested to limit the amount of spending money at the disposal of students. The Treasurer will receive deposits, to be paid out to students as their parents direct.

## RULES.

The Rules and Regulations of the College are available for all students in printed form, and they are held responsible for the know-ledge of them. The Faculty reserves the right to make any changes; additions are made when necessary, due notice being given.

No student is permited to smoke in the College grounds. With the exception of Seniors in the College and in the Engineering Department, students are forbidden to smoke anywhere. SESSION 29

#### SESSION

The College opens on the Wednesday which falls nearest to the fifteenth of September, N. S., and closes on the Wednesday nearest June fifteenth. The registration of students takes place on the two days immediately preceding the opening of the College year, and deficiency examinations of students who have been conditioned at the close of the previous year are held during the first two days of that same week. There is a vacation of twelve days at Christmas, and another at Easter, which are arranged according to the old style calendar. There is a holiday from Friday evening to Monday evening once in every month, and on Wednesday and Saturday afternoons of each week. The College does not grant pemission to go home before the commencement of the Christmas and Easter vacations, nor to return after the beginning of the session. The punishment for breaking this rule will be the following: every absence will be unexcused, and, if there be more than one of these absences, all exit permissions will be refused for the regular time; the student will also receive the mark of zero in all recitations in which he has been absent. If the parents of a student wish to obtain an extension of the vacation, they should make their request in writing to the Direction, who may grant the permission. However, the three punishments indicated above will remain in force.

## STANDING, EXAMINATIONS, AND DEGREES

## REPORTS AND ACADEMIC STANDING.

All recitations and examinations are marked according to a system of ten groups, as follows: 10-9, excellent, 8, good; 7, fair; 6, passable; below 6, failure. At the the close of every month, reports of each student's standing in all subjects are given by the Registrar and these reports signed by the parents or guardian are returned to the office by the student within a specified time. At the close of each semester, an average is taken of the student's monthly marks in

each subject studied, and this average is combined with the result of his final examinations to determine his standing for the semester in that subject. An average is also taken of his standing in all subjects to determine his general standing. Reports of standing in each subject, and of general standing, together with standing in deportment and attendance, are sent to the parents at the close of each semester.

A record of deportment and of attendance is kept by the Dean. These records are separate from that of scholarship.

#### **EXAMINATIONS.**

Entrance examinations are held in June, and on the days immediately preceding the opening of College in September.

Final examinations, either written or equivalent to written, are held at the close of each semester in all the courses which have been pursued during that time.

Deficiency examinations are held three times a year for the removal of conditions, at the close of the summer, Christmas and Easter vacations. For special examinations at other times a special examination fee is charged.

Written or oral tests may be held at any time when the teacher considers it expedient, with or without previous notification to the students. Written tests are generally held at the close of every college month.

#### CONDITIONS AND FAILURES.

## Academy

## Definition

1. Failure to obtain the required average (6) in a subject in the work of one semester constitutes a condition in that subject.

## Penalty for Conditions

- 2. a) A student who has more than three conditions at the end of the first semester is dropped at once into a lower class.
- b) A student who has more than two conditions in June or whose general average for the year is below (6) cannot pass into a higher class, but must repeat the work of the year.

- c) If in June a student is conditioned in two subjects, he must take deficiency examinations in both subjects, at the appointed time in September. If he then fails in both examinations, he cannot pass into the higher class, but must repeat the work of the previous year. If he fails in one examination only, he is allowed to pass to the higher class. Exception to this rule is made in the case of VI. Academy students; these must remove all conditions before they can pass into the Freshman class and only one trial is allowed to pass off a deficiency in September.
- d) A student who fails twice in succession to pass his class is not allowed to remain in the Academy.
- e) A student having three conditions in January must drop all electives for the remainder of the year.
- **3.** a) To pass off a condition in a subject, a student must receive a passing mark in the deficiency examination, irrespective of the term's work, and the original record shall stand in making up the general average for the year.
- b) A condition in the work of the first semester must be passed off not later than the following September. A condition in the work of the second semester must be passed off not later than the following Christmas.
- c) A student is required to present himself at every opportunity offered for the removal of conditions.
- d) Any student who fails to remove a condition at the first trial must employ a tutor approved by the Head of the Department concerned or else repeat the subject in class. If he fails at the second trial, he must repeat the subject in class.
- e) Any student deficient in Music, Drawing, or Penmanship for one year is required to repeat such courses during the following year.
- f) A student who is obliged to make up in class a deficiency in any subject must attend all the exercises in that subject, even if they conflict with those of some other course which he is required to take with the class in which he registered. A student may not however, pass off any course so displaced except by attending at

least half of the exercises and passing all the tests and examinations given in that course.

g) A student taking a *language* study in advance of his class is required to have an average of at least (7) each semester in order to continue.

#### COLLEGE AND ENGINEERING SCHOOL.

(Section 3a, b, c, f, g. also apply)

- **4.** A student receiving an average of 5 or less in a subject is considered as having failed in the course and is required to repeat the subject in class.
- **5.** A student receiving an average of 5 or 5.5 is considered as conditioned in the course and is allowed *one* opportunity to pass off this condition by examination; failing to pass off the condition before the beginning of the corresponding semester of the following year, the student is required to repeat the subjects in class.
- **6.** A student conditioned or failed at the end of the year in more than one-fourth of the year's work, shall be considered as having *failed in his class* and shall be required to repeat all subjects in which his average is less than 7.

#### DEGREES.

The College grants degrees under the Charter granted by the University of the State of New York. The degrees of B.A. (Bachelor of arts), B.S. (Bachelor of Science), B.S. in Com. (Bachelor of Science in Commerce), M.A. (Master of Arts), B.Sc. in E. (Bachelor of Science in Engineering) B.Sc. in C.E. (Bachelor of Science in Civil Engineering) are conferred on candidates pursuing satisfactorily the courses leading to them.

#### **EXPENSES AND FEES**

#### ENTRANCE DEPOSIT.

Places in the College are secured by the payment *in advance* of a deposit of fifty liras for boarding students and ten liras for day students. This amount is applied on the fees of the first term. If

a new student is not received or does not attend the school, the sum of five liras of this deposit will be retained by the College for the expenses of examination and registration.

## BOARD, LODGING, TUITION.

The charge for board, lodging and tuition is five hundred twenty five Turkish liras per annum. This includes the use of the gymnasium and the washing of linen. A bedstead and a straw mattress is furnished each student, but he must bring his own woolen or hair mattress, bedding, etc. He must provide his own text books and stationery and be responsible for all other personal expenses.

The charge for tuition only is one hundred twenty five Turkish

liras per annum.

SUMMARY	OF	FEES	1921-1	922		
					II Sen	iester
Board and Lodging • • • •			• • Ltq.	200	Ltq.	200
Tuition • • • • • • • • • • • • • • • • • • •			• • "	62.50	"	62.50
Irregular examinations • •		· · Ltq	ı. 2			
Late Registration • • • • •		,,	2			
Infirmary			• • "	2		
Athletic Association • • •			• • "	1	•	
Piano			- · "	20	"	20
Violin · · · · · · · ·			• • ,,	20	"	20
Use of Piano				6	"	6
Room for violin practice •			• • "	3	"	3
Industrial Training				5	"	7
Biology · · · · · · · ·				3		
Botany · · · · · · ·				1		
Chemistry · · · · · · ·				5	Ħ	5
Physics (Incl. Elect. Meas.) •				4		
Engineering fees:				nester	II Sen	1ecter
Wood Shop · · · · ·			· Lta.	6	Ltq.	6
Foundry			_		— 1 <sup>-</sup>	6
Forge Shop · · · · · ·				6	"	6
Machine Shop • • • • •				6	"	6
Hydraulic · · · · · ·				2	"	$\overset{\circ}{2}$
Electric • • • • • • •				5	"	5
Surveying · · · · · ·				3	"	3
Materials Testing • • • • •				3	11	3
Power Laboratory • • • •				6	"	6
Consultation with the College				_	"	

#### PAYMENTS.

All fees are payable in advance. The first payments for board, lodging and tuition and for tuition only, are due upon entrance in September, at the opening of the College. The second payments are the same and are payable at the opening of the second semester immediately after the Christmas vacation. All other fees are payable at the same times half in September and half after the Christmas vacation—except laboratory and gymnasium fees and certain others, which are payable in September on entrance, and examination fees, which are payable before taking examinations.

No student is permitted to remain in the College beyond the time for which he has made payment. Each semester which is commenced must be paid for in full.

#### REBATES.

In cases of students leaving the College on account of sickness which is certified by the College Physician, a rebate may be made for board fees at the discretion of the Direction.

Attention is called to the following rule regarding the advance deposit: The deposit which is paid in advance in order to secure a place in Robert College is intended to guarantee that the application is seriously made and that the student will attend the College. The College reserves these places. If such students fail to attend after the usual time for registration is past, their places are liable to remain unfilled. The College therefore gives notice that the deposit made to secure places will not be returned unless the application for its return is received on or before the first day of the College year.

No reduction is made to students who come late, and nothing will be refunded to students who leave before the close of the semester for any cause other than sickness.

#### REMITTANCES.

The best method of remitting is by bank check, payable at

Constantinople. All remittances should be made payable to J. Edward Todd, Bursar. Parents and guardians should give explicit instructions regarding the expenditure of money sent for students in care of the college authorities, and they are requested to limit the amount of pocket-money at the student's disposal.

#### **SCHOLARSHIPS**

A few scholarships have been established for the aid of promising students who are not able to pay the full amount of their tuition. One scholarship was established some years ago by Mr. Walter Wood, of Philadelphia. The children of Mrs. Lois Newton of Sherburne, N. Y. in memory of their mother, have devoted all her property, about \$13,000, to the establishment of \$100 scholarships for the sons of Protestant clergymen in Turkey, or for other Christian young men. These are known as the Newton scholarships, and they provide for four beneficiaries.

It is hoped that other scholarships may be established. The alumni have taken in hand to raise a scholarship to be known as the Washburn Scholarship, in memory of Doctor Washburn, the former President. This fund now amounts to \$3803.45. The purpose of the alumni was to increase this fund until the interest should provide at least half of the fees of a boarding student. This scholarship is assigned to the senior having the highest average grade during his three previous years in college.

The existing scholarships are not sufficient to meet the needs of the numbers who apply to the College for aid every year. The College has aided some students from its funds, but the number of students aided in this way must decrease in view of the number of applicants who must be refused for lack of room, although they are ready to pay the fees in full.

All scholarships are granted for one year only; their renewal is at the discretion of the Direction, and depends also upon the deportment of the student and the progress which he makes in his studies.

## Robert Academy.

#### General Statement

The course of instruction in Robert Academy extends over six years. At present no student is admitted to the Academy who has not *completed* his *twelfth* year, but the course is so arranged that a boy of twelve of good ability who has already had good training in his local school can complete the work of the Academy in four years. Students who have had a less thorough preparation before entering the Academy will require five or six years to complete the Academy course. A certificate of graduation is given to each student who has satisfactorily completed the course of study in Robert Academy.

These certificates indicate the standing of students during their course in Robert Academy in the following way: For those who have had a general average during the course, of 6 to 7. 9, the certificate is inscribed with the words, "in a satisfactory manner"; for those who have had a general average of 8 to 8. 9, with the words, "with honor"; for those who have had a general average of 9 or above, with the words, "with high honor".

New students may enter upon the course at any point for which their attainments fit them. No knowledge of English is necessary for entrance, but as a thorough knowledge of this language is essential for work in both the Academy and College, special classes for Beginners in English are planned to prepare them in English as rapidly as possible. See the fuller statements as given under "English" in the description of the Courses of Instruction.

The following Tabular Statement shows the subjects studied in each year of the Academy course, with the number of recitations per week in each subject:

## Robert Academy

## TABULAR CLASSIFICATION OF STUDIES (3)

## (1) First Year Program for all Students who are Beginners in English

•	Grad	le I a	Gred	le I b	Grad	le I c	(2) Grade I d		
	1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term	
English Direct · · · ·	6	6	6	6	7	6	6	5	
English Indirect · · · ·	6	6	6	6	7	5	8	6	
English Conversation .			:				3	2	
Vernacular · · · · ·	6	6	6	6	4	4	4	4	
French • • • • • •		i			4	4	4	4	
Arithmetic	4	4	4	4	4	4	5	2	
Algebra • • • • • •		:						3	
General Science · · · ·								3	
Geography (in Vernacular)	4	4	4						
Geography (in English) •				4		3			
Bible (in Vernacular) · ·	1	1	1	1	1	1	1	1	
Music (in chorus) · · ·	1	1	1	1	1	1	1	1	
Music (in class) · · · ·			•	1		1		1	
Industrial Training · ·					2	2			
	28	28	28	29	30	31	32	32	

(1) See the statements as to the classification of new students as given under "English", page 43 and under "Greek, Entrance Requirements", page 49.

by the number of hours per week that subject is taught, except that Bible, Music, Penmanship, Industrial Training and Drawing each count 1 hour, and dividing the total of the products

obtained by the total number of hours.

<sup>(2)</sup> I d represents a group of especially selected students who are already well trained and are lacking chiefly in English. They are pushed hard and only good students can stand the test. They are required to secure an average of 7.5 at the end of the 1st term in English Direct, English Indirect and Arithmetic, each subject considered separately, in order to remain in I d during the second term. A general average of 7.5 in all subjects is required during the second term in order to pass to the Vth Academy the following year, They may be excused from Vernacular or French in case they are advanced in either subject. Those who attain a general average in all subjects of 8.5 for the year will be permitted the following year to take the work of the Special Sixth Class. In this way mature students of exceptional ability will be able to enter the Freshman Class of the College after only two years work in the Academy.

## Program for all Students who are not Beginners in English

	II Y	/ear	III Year		III Year IV Ye		r V Year		VI Year		Sp. VI (g)	
	1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term	ıst Term	2nd Term	1st Term	2nd Term
English • • • • • •	8	4	4	4	4	4	3	3	3	3	5	5
Vernacular · · · · ·	6	6	4	4	4	4	3	3	3	3	4	4
French			4	4	4	4	3	3	3	3	4	4
Translation · · · · ·			2	2	2	2	2	2	ľ			
Arithmetic · · · · ·	5	5	4	4	4	ļ						
Algebra • • • • • •					İ	4	4		4 (h)	4 (h)	4	4
Geometry • • • • •		<u> </u>		 		 		4	2	2	4	4
Geography · · · ·		4	3	3			4	4	j		]	]
Science · · · · .	4	4			3	3	4	4		3	2	
Community Civics • •	1					 			3			2
History • • • • • •	<b> </b>	1			<b>\</b>				4	4	1	1
Geography and History							1				3	3
Bible • • • • • • •	1	1	1	1	1	1	1	1	1	1	1	1
Music (in chorus) · ·	1	1	1	1	1	1	i				İ	
Music (in class) • • •	1	1	1	1	1	1	1	1	1	1		
Penmanship · · · ·	2	2	2	2	2 ,	2	(1	b)	(	b)		
Industrial Training • •			2	2	L (2)	(2)		c)	(	c)		
Drawing · · · · ·	ł				(2)	(2)	1	<b>a</b> )	(-	d)	ł	
German · · · · ·			1				(	e)	(	f)		
Turkish								e)	•	f)	•	
	28	28	28	28	28	28	25	25	24	24	27	27

(a) Students of the IVth Class who have had one year of Industrial Training are allowed to choose between Industrial Training and Drawing. All others are required to take the Industrial Training.

(b) Penmanship, 2 periods per week, is elective in the Vth and VIth Classes

(c) Industrial Training, 2 double periods per week, is elective in the Vth and VIth Classes.

(d) Drawing, 2 periods per week, is elective in the Vth and VIth Classes.

(e) German, 3 periods per week, or Turkish, 3 periods per week, may be taken by students of the Vth Class who are advanced in French or Vernacular, as a substitute for one of those subjects, or by those who have no regular Vernacular. They are not open to other students of the Vth Class except by special permission.

(f) German, 3 periods per week, or Turkish, 3 periods per week, may be taken by students of the VIth Class as a substitute for French or Vernacular where students are advanced in one of these

subjects, or may be elected by students of high standing.

of Id, and have shown very exceptional ability. The work is so arranged as to cover the essentials of the program of the Vth and VIth Classes in one year. Only those students who have attained a general average of at least 8.5 in III (or Ie) and IVth Classes, taking two years together, or in all the work of Id, are permitted to enter Special VI. As the required work of the Special VI is very heavy, members of this class are not permitted to take any elective subjects.

(h) As the members of the VIth Class had no Algebra during their Fourth Year the hours given to the VIth Algebra will number four (4 per week during 1922-23. Beginning with September, 1923, VIth Algebra will be given three (3) periods per week, making the total of required hours for the

VIth Class 23 instead of 24

# Robert Academy

## Courses of Instruction

## ARITHMETIC, ALGEBRA and GEOMETRY

l a. First Year. – Elementary Arithmetic, studied in the vernacular.

4 hours weekly throughout the year.

I. b. First Year.—The object of this course is to teach Arithmetic in English to pupils who are beginners in that language, but have some acquaintance with arithmetic in their own language. It prepares for the work of the third year. Drill in the fundamental operations, common fractions, including the greatest common measure and the least common multiple, decimal fractions, and simple; denominate numbers. Text-book: Wenthworth and Smith's Arithmetic, Book II, supplemented with West's Elementary Arithmetic.

4 hours weekly throughout the year.

I c. First Year.—For beginners in English. A thorough review of the fundamental operations and fractions, particular attention being given to simple, short, practical methods of calculation; aliquot parts as applied to multiplication, division and percentage; rapid calculations; checking results; denominate numbers and simple exchange; percentage with its application to profit and loss, trade discount, commission, and simple interest. Text-book: Wentworth and Smith's Arithmetic, Book III, supplemented with Ormiston's Arithmetic, Edition III.

4 hours weekly throughout the year.

I d. **First Year.** – This course is for those beginners in English who are mature pupils and have had a thorough course in arithmetic in their own language. A general average of 7.5 is required at the end of the first term in order to remain in this course during the second term. First term, review of fractions and denominate numbers in English; text-book: Ormiston's Arithmetic, Edition III. Second term, review of percentage, square root, ratio, and mensuration, twice a week; Algebra three times a week, covering the ground indicated under IV, second term. Text-books: Wentworth and Smith's Arithmetic, Book III, and Hawkes, Luby and Touton's Algebra, First Course.

5 hours weekly throughout the year.

- II. **Second Year.**—A thorough review of the fundamental principles of arithmetic as used in the solution of problems, least common multiple and greatest common measure by factoring, simple denominate numbers, fractions, and analysis. Text-book: Wentworth & Smith's Arithmetic, Book II.
  - 5 hours weekly throughout the year.
- III. **Third Year.** This course, which is intended for pupils with a know-ledge of English, covers the ground indicated under Arithmetic lc. Text-book: Wentworth and Smith's Arithmetic, Book III, supplemented with Ormiston's Arithmetic, Edition III.
  - 4 hours weekly throughout the year.
- IV. **Fourth Year.**—First term, a rapid review of fractions and denominate numbers; ratio; simple and compound interest; simple problems in banking and insurance; taxes; exchange; square root; mensuration; longitude and time. Textbook: Wentworth and Smith's Arithmetic, Book III. Second term, Algebra: fundadamental operations, parentheses, the equation, and factoring. Text-book: Hawkes, Luby, and Touton's Algebra, First Course.
  - 4 hours weekly throughout the year.
- V. Fifth Year.—First term, Algebra, completion of Hawkes, Luby, and Touton's First Course. Second term. Plane Geometry.
  - 4 hours weekly throughout the year.
- VI. **Sixth Year.** Advanced Algebra, completion of Hawkes, Luby and Touton's Second Course.
  - 3 hours weekly throughout the year.

Completion of plain and solid Geometry.

- 2 hours weekly throughout the year.
- S. VI. **Special Sixth Year.**—A special course arranged to cover in one year the work done in Algebra and Geometry during the Fifth and Sixth Years.
  - 8 hours weekly throughout the year.

#### ARMENIAN

I. First Year.-Modern Armenian Grammar, H. Assadour's Beginners'

course. Reading. - "Kantzaran", A. Andonian's Elementary Course. Writen Exercises. Orthography, sentence building, penmanship.

6 hours weekly throughout the year.

II. **Second Year.**—Grammar, H. Assadour's Book I.; Reading.—"Kantzaran", A. Andonian's Middle Course. Exercises in Composition. Penmanship.

6 hours weekly throughout the year.

III. **Third Year.**—Grammar, H. Assadour's Book II. Reading, H. Assadour's "*Tankaran*", Middle Course, Exercises in writing compositions. Translation from English into Vernacular.

4 hours weekly throughout the year.

IV. **Fourth Year.**—Grammar, H. Assadour's Higher Course. Reading: "Tankaran" H. Assadour's Higher Course. Exercises in writing compositions. Translations from English into Vernacular.

4 hours weekly throughout the year.

V. **Fifth Year.**—"Tankaran", H. Assadour's Higher Course. Translation from English. Ancient Armenian Grammar, "Parakidoutune", as far as irregular verbs. Exercises in writing compositions.

3 hours weekly throughout the year.

VI. **Sixth Year.**—"Kantzaran", A. Andonian's Higher Course. Ancient Armenian Grammar concluded. Ancient Armenian Reader, Tourian's First Year, and Syntax. Exercises in composition in modern Armenian.

3 hours weekly throughout the year.

S. VI. **Special Sixth Year.**— "Kantzaran", the Higher Course. Ancient: Armenian Grammar, "Parakidoutune" Tourian's. Ancient Armenian Reader,. First Year. Syntax. Exercises in writing compositions.

4 hours weekly throughout the year.

#### BIBLE STUDY

I. a, b, c, d. **First Year.** Bible Study and catechism carried on in the vernacular for all students who are beginners in English.

I hour weekly throughout the year.

II. Second Year. Old Testament Heroes.

1 hour weekly throughout the year.

III. **Third Year.**— Elementary study of the life of Christ, based on selected portions of the four Gospels.

I hour weekly throughout the year.

- IV. Fourth Year.— The life of Paul as given in The Acts.

  1 hour weekly throughout the year.
- V. Fifth Year. The life of Christ.

  1 hour weekly throughout the year.
- VI. Sixth Year. Selections from the Epistles of Paul.

  1 hour weekly throughout the year.
- S. VI. **Special Sixth Year.** The life of Christ.

  1 hour weekly throughout the year.

## BULGARIAN

- I. First Year. Reading, narration, dictation, orthography.
  - 6 hours weekly throughout the year.
- II. **Second Year.** Grammar, with the corresponding reader. Text-books as used in the first class of the Bulgarian progymnasium.
  - 6 hours weekly throughout the year.
- III. **Third Year.** Grammar, with the corresponding reader. Text-books as used in the second class of the Bulgarian progymnasium.
  - 4 hours weekly throughout the year.
- IV. **Fourth Year.** Syntax with the corresponding reader. Composition. Text-books as used in the third class of the Bulgarian progymnasium.
  - 4 hours weekly throughout the year.
  - V. Fifth Year. The Art of Style. Readings and Compositions from the

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point of view of Style. Text-books: "Stilstika", and the corresponding reader used in the first class of the Bulgarian gymnasium.

- 3 hours weekly throughout the year.
- VI. **Sixth Year.** Practical application of the material studied during the previous years. Reading, narration, dictation, composition and etymological derivation of words. Study of the Bulgarian Short Story.
- S. VI. **Special Sixth Year.** The same as the Sixth Year, with certain additions according to the needs of the students.

4 hours weekly throughout the year.

#### **COMMUNITY CIVICS**

The object of this course is to develop the student's interest in and knowledge of the factors of his community life, and to help him to become a good and intelligent citizen. Among the factors for study and investigation are health, recreation, education, transportation, local government, etc.

- VI. Sixth Year. 3 hours weekly, first term.
- S. VI. Special Sixth Year. 2 hours weekly, second term.

## DRAWING

Free-hand drawing may be taken in place of Industrial Training by students of the Fourth class, and is also elective for students of the Fifth and Sixth classes. The work is adjusted in every case to the abilities and needs of the individual students.

2 hours weekly throughout the year.

#### ENGLISH

Upon entrance, new students without a previous knowledge of English are classified, according to their maturity and fitness in other subjects, in four grades, as follows: (See the Tabular Classification of Studies for Beginners in English).

Grade I a. - The youngest and most immature students who have had so elementary a training that they can enter the second class of the Academy Course only after one year's work.

Grade I b.—Those whose previous schooling has fitted them to enter the second year of the Academy Course, but who lack a fair knowledge of English.

Grade I c.—Those whose previous schooling has fitted them to enter the third year of the Academy Course, but whose lack of English makes it impossible for them to carry on their class work with students already well-grounded in that language. Such students are given an extended course in English to offset this lack and to enable them the following year to enter the fourth year of the Academy Course.

Orade I d.—Students who come with sufficient preparation in subjects other than English to do the work of the regular fourth year of the Academy Course. They will be given enough special work in English to cover three years' work in one, so that they may enter the regular tifth class the following year.

A general average of 7.5 ("B") in English Direct, English Indirect, and Arithmetic, each subject considered separately, is required for members of I d at the end of the first term, in order that they may remain in I d during the second term. A general average in all subjects of 7.5 in required of all members of I d at the end of the second term in order that they may pass to the Fifth. Those who attain a general average in all subjects of 8.5 for the year will the permitted the following year to take the work of the Special Sixth Class and so enter the Freshman class after only one more year in the Academy.

The following are the courses for these grades:

English I a and I b. — First term. Twelve periods weekly.

Direct Method.— Six periods weekly. English usedex clusively. Thorough grounding in pronunciation and essentials, according to the methods of the International Phonetic Association. Text-book: "Beginning English for the Levant", (Robert College).

Indirect Method.— Six periods weekly. Vernacular teachers, using the same text, give the necessary instruction to enable the student to get the maximum benefit from his lessons in the direct method. These teachers prepare the student in advance for his work with the teachers of the direct method.

Second term. Twelve periods weekly.

I b does more advanced work than I a. I b also uses a geography reader four-periods weekly, as part of the English instruction.

Direct Method.— Six periods weekly. The same text, supplemented by Baker and Carpenter's Second Year Language Reader in I a grade, and Third Year Language Reader in I b grade.

Indirect Method.— Six periods weekly. This course runs parallel to the Direct Method as in the first term, and supplements it.

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English I c. - First term. Fourteen periods weekly.

Direct Method.— Seven periods weekly. English used exclusively. The same method is followed as in I a and I b, but more ground is covered. Text-book: "Beginning English for the Levant", (Robert College).

*Indirect Method.*— Seven periods weekly. The same method of parallel courses is employed as in I a and I b.

Second Term. Eleven periods weekly.

Direct Method.— Six periods weekly. The same text continued, supplemented by Baker and Carpenter's *Third Year Language Reader*. (A Geography Reader will be used an additional three periods per week to supplement the English work).

Indirect Method.— Five periods weekly. This course runs parallel to, and supplements, the direct course. If time allows, other readers may be used. In using the readers, the teachers of the two methods may or may not cooperate, according, to the needs of the classes.

English I d.— First Term. Seventeen periods weekly. Designed for students intending to take three years' English training in one.

Direct Method. Nine periods weekly. English used exclusively in class. A thorough grounding in the essentials of English phonetics, idiom, and spelling. The phonetic study is by the method of the International Phonetic Association. Three periods weekly will be devoted to conversation. Text-book: "Beginning English for the Levant". (Robert College).

Indirect Method. — Eight periods weekly. All grammatical difficulties are explained and meaning of words made clear by vernacular teachers in preparation for the direct method. The same lessons are given the same day by teachers of both the direct and the indirect methods, the student reciting first in the indirect and then in the direct class.

Second term. Thirteen periods weekly.

Direct Method.—Seven periods weekly. "Beginning English for the Levant" will be replaced when completed by Brackenbury's English Idiom. Three periods weekly will be devoted to these texts, two periods to conversation, and one period weekly to reading from Baker and Carpenter's Third Year Language Reader. One period weekly will be devoted to original compositions. (A Science Reader will be used an additional three periods per week to supplement the English work).

Indirect Method. – Six periods weekly. The teachers of the Indirect classes do not cooperate as closely with the teachers of the Direct classes as in the First Term, except in the use of Beginning English for the Levant, three periods weekly.

It will be the aim of the teachers to complete the New Royal Readers III & IV in the remaining time.

II. **Second Year.**— For students who have completed English Ia, First Term. Eight periods weekly.

Direct Method.— Five periods weekly. Text-books: "Beginning English for the Levant", completed; Baker and Carpenter's Second Year Language Reader completed.

Indirect Method. Three periods weekly. Supplementing the Direct Method in the use of Beginning English.

Second Term. Four periods weekly. The Direct Method only, using Baker and Carpenter's *Third Year Language Reader*. three periods weekly.

Composition, one period weekly.

III. **Third Year.** — Baker and Carpenter's *Third Year Language Reader* completed. One composition weekly. Brackenbury's English Idiom two periods weekly.

4 periods weekly throughout the year.

IV. **Fourth Year.**— Brackenbury's English Idiom reviewed and completed, one period weekly. Bué and Sandar's "Comparative Idioms" begun, one period weekly. This text is used as a memory exercise and as a basis for conversation and for phonetic drill. One period weekly will be devoted to the text: "Introduction to American History." Composition one period weekly.

4 periods weekly throughout the year.

V. Fifth Year.— Hawthorn's "Tanglewood Tales". One period weekly. Bué and Sandar's Comparative Idioms (continued) one period weekly, and Nesfield's *Idiom and Grammar* begun. Composition once a week.

3 periods weekly throughout the year.

VI. Sixth Year. — Continuation of English V. Reading from Kipling's "Puck o'Pook's Hill" and "Rewards and Fairies". Sandars' Comparative Idioms completed and Nesfield's Idiom and Grammar completed. Composition once a week.

3 periods weekly throughout the year.

S. VI. **Special Sixth Year.**— This course aims to cover the same amount of ground as that covered in the fifth and sixth years. Longer lessons will be assigned and a higher standard of work will be expected of students permitted to take this course.

5 periods weekly throughout the year.

#### FRENCH

Students are graded in French in the class for which their attainments fit them, without regard to their place in English.

III. **Third Year.** — Première année de français. Livre de classe : "Méthode Alge", nouvelles leçons de français. Etude des verbes réguliers : présent, passé composé, futur et impératif.

4 leçons par semaine.

IV. **Fourth Year**. -- Même manuel que la classe précédente. Etude de l'imparfait, du passé simple, du plus-que-parfait, du conditionnel, du subjonctif et des verbes irréguliers.

4 leçons par semaine.

V. Fifth Year .-- Lecture: "La tâche du petit Pierre".

Grammaire Claude Auge, cours moyen: le nom, l'article, l'adjectif, les adjectifs déterminatifs, les pronoms. Vocabulaire, dictées et exercices de mémorisation.

3 leçons par semaine.

VI. Sixth Year.— Lecture: "Lisons," cours élémentaire II degré. Même manuel de grammaire que la classe précédente: le verbe, le participe, les mots invariables, dictées et exercices de rédaction.

3 leçons par semaine.

S. VI. **Special Sixth Year.**— Mêmes manuels de le lecture et de grammaire que la classe précédente. Etude de toutes les matières enseignées en V et en VI.

4 leçons par semaine.

## GEOGRAPHY

I a. **First Year.**— Elementary Geography, with special emphasis upon local features, studied in the vernacular.

4 hours weekly throughout the year.

Ib. First Year. - Elementary Geography, studied in the vernacular.

4 hours weekly, First Term.

Introduction to Geography in English, based on Frye and Atwood's Elementary Geography, covering the same ground as II Geography.

4 hours weekly, Second Term.

- Ic. **First Year.** A rapid review of Europe and Asia in English, designed to cover the same ground as the Geography of the Third Year.
  - 3 hours weekly, Second Term.
- II. **Second Year.** Introduction to Geography in English. General survey of the continents and chief political divisions, based on Frye and Atwood's Elementary Geography.
  - 4 hours weekly, Second Term.
- III. **Third Year.** Europe and Asia, based on Atwood's "New Geography, Book II". Supplemented by Carpenter's Geography reader of Europe and Huntington's Geography Reader of Asia.
  - 3 hours weekly throughout the year.
  - V. Fifth Year. First Term North and South America, Africa and Australia.

Second Term – A thorough review of Europe and the Near East.

Text: Atwood's "New Geography, Book II". Supplemented by numerous readings.

- 4 hours weekly throughout the year.
- S. VI. **Special Sixth Year.**—History and Geography are combined in one course.
  - 3 hours weekly throughout the year.

#### GERMAN

German 1 and 2.—Beginning German. Systematic drill in the rudiments of Grammar, Reading from Joerg, *First German Course.*— Conversation. Elective for students of the Fifth and Sixth Academy and of the college.

3 hours weekly throughout the year.

German 3 and 4.— Continuation of grammar, with special emphasis upon Syntax. Reading from Joerg, Grimm's Fairy Tales and other selections. Practice

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in conversation and narration. Short compositions. Memorizing of short poems Elective for students of the Fifth and Sixth Academy and of the college.

3 hours weekly throughout the year.

#### GREEK

## **Entrance Requirements**

Students who have completed the work of the fifth year of a primary school and who, on examination, show that they have really mastered the subject matter which is taught in that year, are admitted to the First Academy class in Greek, and are classified as Grade I a. (See the tabular Classification of studies, Program for Beginners in English, page 37.)

Graduates of the sixth class of the primary school who obtain marks ranging from 6 to 8 in the entrance examinations in Greek, Arithmetic and Geography, are admitted into the II Academy class in Greek and are classified as Grade I b. Graduates of the Sixth class of the primary school who obtain marks of above 8 in these three subjects are admitted into the III Academy class and are classified as Grade I c.

Students who have completed the 7th year of a higher primary school are admitted into the IV Academy class in Greek and are classified as Grade I d. Students who have done still higher work in Greek are admitted into the V or VI Academy class in Greek, but if ignorant of English are classified as I d students.

I. **First Year.**— Work in modern Greek only. Angelides' Reader No. 6. Grammar of Modern Greek reviewed and completed. Memorizing of select poems, Short exercises in dictation every day. Short compositions once a week.

6 hours weekly throughout the year.

II. **Second Year.**—(a) Ancient Greek, 4 hours weekly. Grammar of Ancient Greek up to the verbs in -mi. Xenophon's Anabasis, Books I and II. (b) Modern Greek, 2 hours weekly. Angelides' Reader No. 6 continued. Exercises in dictation and composition.

6 hours weekly throughout the year.

- III. **Third Year.** Grammar of Ancient Greek up to the verbs in -mi reviewed and completed. Xenophon's Anabasis, Books III and IV. Angelides' Reader for the 1st Gymnasium Class. Exercises in dictation and composition.
  - 4 hours weekly throughout the year.
  - IV. Fourth Year. Grammar: the verbs in mi-, irregular verbs, derivation

and composition of words, practical exercises in syntactical analysis. Reading: 1st term, Lucian's Dialogues of the Dead; 2nd term, Xenophon's Memorabilia. Angelides' Reader for the 1st Class of the Gymnasium continued. Exercises in dictation and composition.

#### 4 hours weekly throughout the year.

V. Fifth Year. — Study of Syntax up to the verb. Study of the irregular verbs which are met in the text read. Exercises in syntactical analysis. Reading: Lysias' oration against Eratosthenes, Plutarch's life of Aristides. Angelides' Reader for the 2nd Gymnasium Class. Exercises in dictation and composition.

4 hours weekly throughout the year.

- VI. **Sixth Year.** Syntax reviewed and completed. Reading: Plato's Criton. Angelides' Reader for the 2nd Gymnasium Class. Exercises in dictation and composition.
  - 3 hours weekly throughout the year.
- S. VI. **Special Sixth Year.** Study of Syntax (the work of the V and VI years). Reading: Plato's Criton and Plutarch's Aristides. Angelides' Reader for the 2nd Gymnasium Class. Exercises in dictation and composition.

4 hours weekly throughout the year.

#### HISTORY.

VI. Sixth Year. - 1-2 Ancient History.

A study of the history of the Oriental Nations and Greece from prehistoric times to the conquest by the Romans, and the history of Rome as kingdom, republic, and empire, to the break-up of the Roman Empire. Text-book: Breasted's, "Ancient Times."

4 hours weekly throughout the year.

S. VI. Special Sixth Year. - 1-2 Special. Ancient History.

An abridged course, covering the same period as History 1-2. Text-book: Robinson and Breasted's "Ancient and Medieval History."

1 hour weekly, First Term.

3 hours weekly, Second Term.

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## INDUSTRIAL TRAINING

Course 1.— In this course the students are taught the use of wood-working tools by making objects useful for their out-of-door play. Towards the end of the year the use of the turning lathe is begun. A special fee is charged for this course. Required, Two double periods per week, of all members of Third Year and of students in the Fourth Year who have not already completed it.

Course 2.— This course includes the making of various kinds of joints, practice in mortising and tenoning, the making of panels, etc.; also the assembling of the above into objects which have a definite use. Some practice is given on lathes; a fee to pay for materials is charged. The course is open to students who have finished course I.

#### MUSIC

The aim of these courses is to enable the student to read music intelligently, to increase his fondness for music and his appreciation of it, and to stimulate his interest in the study of the fine arts.

For new students who are beginners in English three introductory classes in vocal music are formed at the beginning of the second term, each meeting once a week. These classes are graded according to the student's grade in English (see English I b, I c, I d). The work of each grade is so planned as to prepare the student for entrance into the regular course at his proper place.

All members of the Second, Third and Fourth Classes, and all Beginners in English, are divided into three groups of about one hundred each for chorus singing one period per week.

The regular course in Music begins in the Second Year. Each class meets once a week throughout the year.

- II. **Second Year.** Rote Songs. Practice in intervals; listening lessons to induce concentration and discrimination. A small Victrola is used for this work.
- III. **Third Year.** Notation. Interval Work. Listening lessons continued. Artistic records chosen so that the student may acquire taste.
- IV. **Fourth Year.** A music reader is introduced and the first nine keys used. Simple exercises in two-part singing.

- V. **Fifth Year.** Unison and Part Songs, with special attention to light and shade. This class is divided into divisions according to the previous training of the students, since many students from I d enter this year who are inadequately prepared.
- VI. **Sixth Year.** Folk Songs of all nations, with attention to national characteristics. Study of song-forms by means of the Victrola, the Ballade, Aria, Lied, Art-Song, etc.

## PENMANSHIP

Instruction in penmanship is given to all members of the Second, Third and Fourth Classes, two hours per week throughout the year. It is elective for members of the Fifth, Sixth and Special Sixth Classes who have not had previous training.

Students who have attained a suitable degree of proficiency may be excused by the Principal from further instruction, upon recommendation by the teacher.

The muscular movement, slant system, is employed.

#### SCIENCE

Id. **First Year.**— General science,— selections from the work in Science of the Fourth Year. This course is treated also from the standpoint of instruction in English.

3 hours weekly, Second Term.

II. **Second Year.** – Elementary Science and Nature Study, based on Murché's Science Readers, No. 3 and 4. This course is intended as an exercise both in science and in English.

4 hours weekly throughout the year.

- IV. **Fourth Year.** "General Science", following the "project", or "problem" method of study, based on Caldwell and Eikenberry's, "General Science".
  - 3 hours weekly throughout the year.
- V. **Fifth Year.**—Physiology. Recitations and lectures. Text-book: Conn's, Elementary Physiology and Hygiene. The course is illustrated by the use of the manikin, the skeleton, dissections, and lantern slides.

4 hours weekly, first term.

Introductory course in Zoology. – Text-book: Burlend's First Book of Zoology. The course is amply illustrated by charts, dissections, models and the museum.

4 hours weekly, first half, second term.

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Introductory course in Botany.— Text-book: Healey's First Book of Botany. The course is illustrated by experiments in plant physiology; by models, charts, and herbarium specimens; and above all, it is sought to quicken the student's powers of observation by studying actual plants, flowers, fruits, seeds, etc.

4 hours weekly, second half, second term.

- VI. **Sixth Year.** Physical Geography. Based on Huntington's Principles of Human Geography.
  - 3 hours weekly, second term.
- S. VI. **Special Sixth Year.** Physiology. Recitations and lectures. Textbook: Conn's Elementary Physiology and Hygiene.
  - 2 hours weekly, first term.

#### TRANSLATION

Translation from English into the vernacular is carried on two hours per week during the Third, Fourth and Fifth Years. Text-books: Third, Fourth and Fifth new Royal Readers.

#### TURKISH

## I. Courses required of Turkish students.

- I. First Year. Reading. Memory work. Dictation. Elementary Turkish grammar. Composition. Elementary science.
  - 6 hours a week throughout the year.
- II. **Second Year.** Reading. Memory work. Dictation. Elementary grammar continued. Composition. Elementary science.
  - 6 hours a week throughout the year.
- III. **Third Year.** Reading. Memory work. Turkish Grammar with its Persian and Arabic sections. Dictation. Composition.
  - 4 hours a week throughout the year.
  - IV. Fourth Year. Reading. Memory work. Detailed study of Turkish

Grammar, with its Arabic and Persian sections. Dictation. Composition. Private correspondence. Geography of Turkey. Ethics.

4 hours a week throughout the year.

- V. **Fifth Year.** Reading. Memory work, declamation. Detailed study of the Turkish Grammar with its Arabic and Persian sections continued. Dictation. Composition. Private and official correspondence. Ethics.
  - 3 hours a week throughout the year.
- VI. **Sixth Year.** Reading. Study of selections from modern Turkish literature. Memory work. Composition. Persian grammar and exercises.
  - 3 hours a week throughout the year.
- S. VI. **Special Sixth Year.** The same course as in the regular Sixth Year, plus a general review of the Turkish grammar with its Arabic and Persian Sections.
  - 4 hours a week throughout the year.

## II. Courses elective for non-Turkish students.

Turkish 1 and 2.— Alphabet. Reading. Dictation. Conversation, construction of simple phrases.

3 hours a week throughout the year.

Turkish 3 and 4. – Reading. Memory work. Dictation. Conversation, construction of simple phrases. Practical grammar.

3 hours a week throughout the year.

## COLLEGIATE DEPARTMENT.

(School of Arts and Sciences)

The studies in this department extend over four college years. Courses of study are offered leading to the degrees of Bachelor of Arts, Bachelor of Science and Bachelor of Science in Commerce.

Students taking the combined course in Science and Engineering may, after two years further study in the Engineering College, receive the degree in Engineering.

In addition to the required studies in each course, every student is required to select a sufficient number of elective studies to make at least the required minimum number of hours of recitation per week, but is not permitted to choose so many elective studies that his maximum number of hours per week shall exceed twenty-four. The minimum for Seniors is 19 hours and for others 21 hours. Students are not permitted to elect a subject unless they have previously studied the subjects which necessarily lead up to it.

A new curriculum has been adopted which will go into operation gradually. The Academic year 1924-1925 is the first year that it will be in complete operation. The courses of study for the transitional years until 1924-1925, as well as the year 1924-1925, are given in the tabular statement below:—

Academic Year 1922-1923

Subject ·	F	resl	ımar	1	So	pho	omo	re		Jun	ior		Senior			
oubject .	BA.	BS.	BS.in Com.	aa.	BA.	BS.	BS.in Com.	aa.	BA.	BS.	BS.in Com.		BA.	BS.	BS.in Com.	aa.
English · · · ·	3	3	3	3	3	3	3	3	2	2	2		2	2	2	
Vernacular • • • •	3	3	3	3	3	3	3	3	3	3	3	j	3	3		1
French or German	3	3	3	3	3	3	3	3	3	3		3				! ;
Latin • • • • •	3		:		3	:			3				3			
Bible · · · · ·	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Music • • • • •	1	1	1	1						~				:		
Mathematics (1) · ·	3	3	3	3		3		3			 	4			:	)!
Science · · · ·										4				4		  -
Biology & Botany •		3	3	3												
Physics · · · ·					4	4	4	4			•	5				
Chemistry · · · ·									4	4	4	4				3.
History · · · ·	4	4	4	4	4	4	4	4	3	3	3			 		
Economics · · ·	:								3		3		3	3		3.
Sociology · · · ·	į		 					  -  -			[		3	 	3	
Psychology & Ethics														3	3	3
Philosophy • • • •					ł					ŀ			3			ļ !
Commercial Subjects			(3)				5				5				12	11
Engineering · · ·	<u> </u>			2				3				6				or 12
(1st Semester) · ·	21	21	21	23	21	21	23	24	22	20	21	23	18	16	21	21 or 22
(2nd Semester) · ·	18				ļ								<u> </u>			

<sup>(1)</sup> For B. A. and B. S. in Com. students mathematics is required the 1st semester only. B. S. in Com. students are required to take business mathematics the 2nd Semester.

Academic Year 1923-1924

Subject	F	rest	ımaı	1	So	pho	moı	re		Jur	nior		Senior			
	BA.	BS.	BS. in Com.	σ <b>σ.</b>	BA.	BS.	BS. in Com.	ca.	BA.	BS.	BS, in Com.	aa.	BA.	B\$.	BS, in Com.	αα
English · · · ·	3	3	3	3	3	3	3	3	3	3	3		2	2	2	
Vernacular · · ·	3	3	3	3	3	3	3	3	3	3	3		İ		; 	}
French or German	3	3	3	3	3	3	3	3	3	3	ļ Į	3			ļ   	
Latin · · · · ·	3	[	[		3				3				3			
Bible • • • • •	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Music · · · · ·	1	1	1	1	ļ						<b>!</b>   				:	
Mathematics (1) · ·	3	3	3	3		3	<u> </u> 	3		 	<u> </u> 	4		 	 	<u> </u> 
Science · · · ·									ł	4				4		
Biology & Botany ·		3		3								<b>!</b> ! !				•
Physics • • • • •		<u> </u> 			4	4	4	4				5			<u> </u> 	
Chemistry · · · ·										4	4	4			}	3
History · · · ·	4	4	4	4	4	4	4	4							! !	j
Economics · · ·		:		:					3		3			3		3
Sociology · · · ·			 				}   		3		 		3	ļ 1	3	
Psychology & Ethics										!		·    -  -	3	3	3	3
Philosophy · · ·					1		<u> </u>	 					3		] 	
Commercial Subjects		 	(3)	ļ		<b>!</b> :	3				6		Ŧ		12	11
Engineering · · ·				2				3			<del> </del>	6			]   	or 12
	21	21	18	23	21	21	21	24	19	18	20	23	15	13	21	21 or 22

<sup>(1)</sup> For B. A. and B. S. in Com. students mathematics is required the 1st semester only. B. S. in Com. students are required to take business mathematics the 2nd semester.

## Academic Year 1924-1925

Subject	F	Fresl	ımaı	1	So	opho	omoi	re		Jun	ior		Senior			
	BA.	BS.	BS.in Com.	۵۵۲	BA.	BS.	BS.in Com.		BA.	BS.	BS.in Com.	ca.	BA.	BS.	BS.in Com.	aa.
English · · · ·	3	3	3	3	3	3	3	3	3	3	3			1		
Vernacular • • •	3	3	3	3	3	3	3	3	3	3	3					
French or German	3	3	3	3	3	3	3	3	3	3		3				
Latin · · · · ·	3	]   			3				3				3			ł
Bible	   1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Music · · · · ·	1	1	1	1												
Mathematics (1) · ·	3	3	3	3						}		4				ļ
Trig. & Analytics .		•				3		3			 					
Science · · · ·				<b>;</b> 				   		<b>]</b>				4		
Biology & Botany •		3	] 	3		<u> </u>				<u> </u> 		   		   		
Physics • • • •					4	4	4	4		   		5.			!   	
Chemistry · · · ·										4	4	4				3
Physics or Biology	Ì		] ,							4 or						
History · · · ·	4	4	4	4	4	4	4	4		5			ľ			
Economics									3		3			3		3
Sociology · · · ·				   									3	İ	3	
Psychology & Ethics									3					3	3	3
Hist. of Philosophy							!   						3			
Commercial Subjects			(3)	 		•	3	:			6				12	
Engineering · · ·				2				3				6	<u> </u>			12
	21	21	18	23	21	21	21	24	19	18 or 19	20	23	10	11	19	22

In Freshman, Sophomore and Junior years minimum hours – 21

maximum hours – 24

In Senior year minimum hours-19

maximum hours - 24

(1) For B.A. and B.S. in Com. students mathematics is required the 1st semester only. B.S. in Com. students are required to take business mathematics the 2nd semester.

#### ARMENIAN.

Professor Hagopian, Mr. Hagopian.

- 1-2. R. Zartarian's "Meghraked" Ancient Armenian Reader. second year concluded by Tourian. Translation. Exercises in composition.
  - 3 hours weekly, Freshman year.
- 3-4. Selections from "Dzaghgakagh" in prose, first book. Armenian History. Written exercises.
  - 3 hours weekly, Sophomore year.
- 5-6. Selections from "Dzaghgakagh", first book concluded. "Dzaghgakagh", second book (poetical works.) Translation from English authors into modern Armenian. Armenian Literature.
  - 3 hours weekly, Junior year.
- 7-8. A critical study of prominent Armenian authors. Armenian Church History.

  3 hours weekly, Senior year.

## ASTRONOMY.

2. Elementary Astronomy

Professor DIKE

The aim of the course is to make the student familiar with the general principles and more important facts of the science. Classroom work is supplemented by the use of a five-inch telescope and a small meridian instrument. Text-book: Moulton's "Introduction to Astronomy."

3 hours weekly, second term, senior year.

#### BIBLICAL LITERATURE

It is the purpose of the courses stated below to cover the essentials of Biblical History.

1-2. Study of the Early history of the Christian Church, based on the Acts of the Apostles.

Professor GOODSELL

1 hour weekly Freshman year.

3-4. Lives of Eminent Christian Men.

Professor BLACK

1 hour weekly Sophomore year.

5-6. The Major and Minor Prophets

Professor BLACK

1 hour weekly Junior year.

7 --- 8.

President GATES

1 hour weekly Senior year.

#### BIOLOGY

DR. POST, MR. PIMENIDES

1-2. Biology and Botany. -3 periods of recitations and lectures a week, throughout the Freshman year. The life processes of plants and animals, reproduction, heredity, evolution, and many other topics of vital interest are studied.

Most of the time during the second semester will be given to the systematic study of the flora of the Bosphorus region, both in the class-room and outdoors. Students are taught to recognize and distinguish family, generic, and specific characteristics, and to describe plants accordingly, a splendid practice in classification and observation. Elective for B. A. candidates, required for others. Beginning with 1923-24 elective for B.A. and B.S. in Com. candidates, required for others.

3-4. Zoology. - A comprehensive view of Invertebrate and Vertebrate Zoology, in one year. Text-book: Linville and Kelly's "Text-book in General Zoology". Laboratory fee. Elective for Juniors or Seniors.

2 periods of recitations and lectures and 2 Laboratory or field periods a week, throughout the year.

5. Histology. – Microscopic preparations of the tissues and organs of the body are made and studied. See note below.

1 period of lecture or recitation and 2 laboratory periods a weck during the I semester.

6. *Embryology*.—Sections of the chick in the successive stages of its development are prepared and studied. Course 5 pre-requisite. *See note below*.

2 periods of lecture and recitation, and 2 laboratory periods a week, during the II semester.

**Note:** The courses in *Histology* and *Embryology* are especially intended for students who expect to study medicine.

- 7. Sanitary Science.—A lecture course, covering briefly the elements of bacteriology and vital statistics, public health administration, the sources and methods of infection, special study of the epidemiology of certain communicable diseases, industrial hygiene, municipal sanitation and housing, and the sanitation of labor camps.
  - 2 hours weekly, I semester. Elective in Junior and Senior years.

#### BULGARIAN

- 1-2. Ancient Bulgarian. Reading, translation from ancient into modern Bulgarian and vice versa, grammar, comparative study of ancient and modern Bulgarian and Slavic Etymology.
  - 3 hours weekly, Freshman Year.
- 3-4. History of Bulgarian from the earliest to the present time with an outline of the chief periods in the history of the other Balkan States and of the events in European History that bear relation to the Balkan Peninsula. Essays on different periods of Bulgarian History.
  - 3 hours weekly, Sophomore year.
- 5-6. History of the Ancient and Modern Bulgarian and some of the Slavic Literatures. Study of the Bulgarian authors Vazoff, P. Podoroff, Karaveloff and Mihailovsky. Essays on Bulgarian authors.
  - 3 hours weekly, Junior year

## CHEMISTRY

Professor Scoles, Mr. Pasche.

1-2. General Chemistry.— A study of the more familiar elements and compounds. An elementary study of chemical reactions and a development of chemical laws.

Required of all Juniors 1922-23. Required of all Juniors, except A. B., 1923 and thereafter.

Two periods of class work and two double periods of laboratory work each week throughout the year.

3. General Chemistry.— A study of fundamental principes and the non-metallic elements.

Required of all Engineers.

Three lectures and two double periods of laboratory work each week. First Semester.

4. General Chemistry and Qualitative analysis. — Continuation of 3. Tests for and separation of the common metallic and non-metallic ions.

Required of all Engineers.

Two lectures and two double periods of laboratory work each week. Second Semester.

5. Qualitative Analysis.— Tests for, and separation of the common metallic and non-metallic ions and a study of the theory of separation.

One lecture and two afternoons of laboratory work each week. First Semester. Prerequiste 1 and 2.

6. Quantitative Analysis.— Theory and practice of elementary gravimetric and volumetric analyses. The more important processes are applied to the commonly occurring elements, especially those of economic and industrial importance.

One lecture and two afternoons of laboratory work each week. Second Semester. Prerequisite 5.

7. Quantitative Analysis. – Elementary gravimetric and volumetric analysis Proximate analysis and calorific value of coal; testing of burning and fuel oils; testing water for boiler use; elements of gas analysis.

Required of all Engineers.

One lecture and two afternoons of laboratory work each week. First Semester. Prerequisite 4.

8. Organic Chemistry. — General organic chemistry. The Aliphatic Series with special reference to the more important hydrocarbons and their derivatives.

Two lectures and one afternoon of laboratory work each week. First Semester. Prerequisite 2 or 4.

9. Organic Chemistry. – A continuation of 8. The Aromatic Series with special reference to the compounds of theoretical and practical importance.

Two lectures and one afternoon of laboratory work each week. Second Semester. Prerequisite 8.

#### COMMERCE

Professor Morgan, Professor Lay, Mr. Conn, Mr. Haralambides, Hazim Bey.

#### 1-2. Commercial Arithmetic.

Mr. CONN, Mr. HARALAMBIDES

The work includes a systematic drill in fundamental operations for the purpose of developing accuracy and speed; the applications of the principle of percentage in Interest, Trade Discount, Bank Discount, Commission and Brokerage, and Profit and Loss; problems in Stocks and Bonds, Foreign Exchange, Accounts Current, and Partnership Settlements.

- 2 hours weekly, Sophomore Year 1922-23.
- 3 hours weekly, 11 Semester, Freshman year 1922-23 and thereafter.

#### 3-4 Bookkeeping

Mr. HARALAMBIDES

The aim of these courses is to impart a thorough knowledge of the theory and practice of the fundamental principles of bookkeeping, so that those students who do not wish to pursue the subject further may be fitted to take charge of intelligently, and keep satisfactorily, any ordinary set of books, in accordance with Continental methods, or the abbreviated English and American methods.

3 hours weekly, Sophomore year.

#### 5-6. Accounting.

Professor LAY

Those taking these courses must have had courses 3-4. Courses 3-4 aim to make bookkeepers; courses 5-8 aim to make accountants. Principles are taught which are general and universal in their application, and which, when once grasped, may be applied to any business or financial transaction.

2 hours weekly, Junior year.

## 7-8. Advanced Accounting.

Professor Lay

A continuation of courses 5-6.

3 hours weekly, Senior year.

#### 9-10 Principles of Business.

Mr. Conn.

An introductory, survey course, embracing the whole field of the science of business.

A study of the functions, the uses, the work of banks, of business organization,...

of competition, of specialization, of government, of scientific management, of education, and of the other multitudinous agencies which together make up our modern want-gratifying machine.

3 hours weekly, Junior year.

#### 11-12 Business Finance.

Professor MORGAN

A general survey course to obtain a clear understanding of the nature of the modern financial system and of the economic functions performed by each of the numerous financial institutions.

Also a practical study of financial management in private business concerns; an exposition of the essential principles of all sound financing.

3 hours weekly, Senior year.

#### 13-14.—Business Administration.

Professor LAY

A scientific examination of the principles underlying the successful conduct of business enterprises. The following subjects are thoroughly discussed: The administration of personnel; the administration of market problems; the administration of finance; the administration of production; the administration of risk-bearing; plant location; the form of the business unit; basic features of administration.

3 hours weekly, Senior year.

#### 15.—Business English.

Mr. Conn

The purpose of this course is to assist the student in writing a really good effective business letter.

3 hours weekly, I semester, Senior year.

#### 16.—Business Law.

HAZIM BEY

A study of the elementary principles of law governing mercantile transactions that are recognized by business men of all nations.

3 hours weekly, II semester, Senior year.

#### 17-18.-Accounting and Finance.

Professor LAY

A study of the principles of accounting theory and practice. An exposition of the principles and methods governing the promotion and financing of modern corporations. Required of Senior Engineers.

2 hours weekly throughout the year.

## **ECONOMICS AND SOCIOLOGY**

Professor Morgan, Professor Johnson

#### 1-2.—Economics.

Professor MORGAN

A study of the leading facts, principles and problems of general economics. The aim is to arouse interest in economic problems, rather than to furnish cut-and-dried solutions; to make students think; to stimulate social interest; to enlarge human sympathy; to develop love of justice. Required of all students.

3 hours weekly, throughout the Junior or Senior year.

3-4.—Sociology.

Professor JOHNSON

First Semester: An introductory study of the principles underlying the development of society and of the fundamental teachings of Sociology.

Second Semester: Emphasis is given to practical social problems. Class visits are made to such important institutions as the Poor Farm, the New Stamboul Prison, an Orphanage, a Refugee Camp, the Mint. Each member of the class is required to make a careful survey of some social problem.

5-6. – *Sociology*.

Professor Johnson

An advanced course in Social theory and in Social Surveying. Open to a limited number of approved graduates who are candidates for the M. A. Degree.

## ENGLISH

Professor Watson, Mr. Davis, Mr. Read, Mr. Hayes

- 7-8. Composition and Rhetoric. Text: Arnold and Kittredge Composition and Rhetoric. One period a week will be devoted to oral expression and reading from phonetic texts. Reading from Morris's News from Nowhere and First Series of Plays by Galsworthy. The latter part of the course will be given to a study of the principles of argumentation and debate. Some time will be given to oral debate in class. This course will be given to the Sophomore class in 1922–23; to the Freshman class thereafter.
- 9-10. Select works from English Literature will be read, such as Franklin's Autobiography; Cooper's "The Spy"; Longfellow's "Evangeline"; Dickens'

"The Tale of Two Cities"; Eliot's "Silas Marner"; and representative plays of Shakespeare. Composition work of an advanced grade will be required weekly. This course will not be given until 1923-24.

3 periods weekly, Sophomore year.

- 11-12. History of English Literature from its beginning to the end of the 18th century. Lectures; written and oral reports on assigned readings, and a thesis on some special author.
  - 2 periods weekly, Junior year.
- 13-14. The History of English Literature, completed through contemporary authors
  The same general method will be followed. A thesis will be required on some period or movement in literature.

2 periods weekly, Senior year.

#### PUBLIC SPEAKING

Every student in the classes below Senior grade will be required to speak once each semester some selection carefully chosen and memorized. Students will be chosen to represent the various classes in public rhetorical exercises, held before the whole college. Those maintaining the highest average during the year will be permitted to compete in the annual prize declamation, which is held in June. There is also opportunity for Public Debates and the delivery of orations.

#### FRENCH

Professor REYMOND, M. BERNER, M. LERESCHE

- 1-2. Reading: Morceaux choisis, Toutey, cours superieur. Literature of the XVIIe century. Reading of classic works. Exercises in style.
  - 3 hours weekly, Freshman and Sophomore years. 1922-23.
- 3-4. Literature of the XVIIth, XVIIIth and XIXe centuries. Histoire de la Littérature française par R. Doumic. Reading of classic works.
  - 3 hours weekly, Junior year.
- 5-6. Study of contemporary writers.
  - 2 hours weekly, elective, Senior year.

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#### GEOLOGY

#### Professor TERZAGHI

**First Semester:** - General Geology: Rock-forming minerals. - Rocks. - Structural features of rocks, and metamorphism of rocks. - Rock-weathering and soils. - Action of rivers and the origin of the landforms. - Historical Geology.

**Second Semester:** Engineering Geology: Underground waters. — Land slides, Wave action, shore currents, shore deposits and the geology of harbours. Lakes, lake deposits and their engineering properties. Glacial deposits and quicksands. Building stone. Limes and cement. Clay and clay products. Road foundations and road building materials. Coal, petroleum, and ore deposits.

Practical Exercises: Geological survey of the college ground and its immediate vicinity. Excursion along the Bosphorus. Macroscopic study of rock-forming minerals and rocks in the College Museum.

Text-book: Heinrich Ries, "Engineering Geology", N. Y. John Wiley and Sons, Last edition.

Three periods recitation and one afternoon field or laboratory work.

#### GERMAN

#### Professor KUNICK

For courses 1-4, see Academy German.

5-6. Prose and poetry of the XIXth century.

3 hours weekly, Freshman year.

- 7-8. Survey of the development of German Literature. Lectures in German and careful reading of the most important masterpieces.
  - 3 hours weekly, Sophomore year.
- 9-10. **First Semester:** Einführunk in die Kenntnis Deutschlands und seines geistigen Lebens. Text-book: Paszkowski's Lesebuch.

Second Semester: Gœthe's Faust, and Hermann und Dorothea.

3 hours weekly, Junior year.

## GREEK

Professor Constantinou, Professor Emmanuel, Mr. Hazapis

- 1-2. History of Greek Historiography and Oratory. One longer oration of Demosthenes or two shorter ones. Half book of Herodotus. Composition.
  - 3 hours weekly, Freshman year.
- 3 4. One additional oration of Demosthenes. Selections from Herodotus. Careful study of the Grammar of the Ionic dialect.
  - 3 hours weekly, Elective, Freshman year.
- 5-6. History of epic poetry; history of historiography (continued). Selections from 2 books of Homer's Iliad. Introduction to Greek Metrics. Etymology. Selections from Thucidides including at least one oration. Composition.
  - 3 hours weekly, Sophomore year.
- 7-8. Selections from Homer's Iliad and Odyssey. Careful study of the grammar of the Homeric dialect.
  - 3 hours weekly, Elective, Sophomore year.
- 9-10. History of Lyric poetry and philosophical literature. Selections from Hesiod and the Lyrics. One dialogue of Plato. Composition.
  - 3 hours weekly, Junior year.
- 11−12. History of Greek Art.
  - 1 hour weekly, Elective, Junior year.
- 13-14. History of the Modern Greek Language and Literature with readings from the works which are treated.
  - 1 hour weekly, Elective, Junior year.
- 15−16. Five books of Homer in class and five more to be prepared by the students. Selections from Thucydides.
  - 3 hours weekly, Elective, Junior year.
- 17-18. History of the Greek Drama. One tragedy of Sophocles or Euripides. Composition.
  - 3 hours weekly, Senior year.

- 19-20. One more tragedy of Sophocles or Euripides. One comedy of Aristophanes.
  - 3 hours weekly, Elective, Senior year.
- 21-22. History of Greek Philosophy in its relation to Greek civilization. Readings from Plato, Aristotle, ethical writings and the Stoics.
  - 2 hours weekly, Elective, Senior year.

**Note:** Courses 1 and 2, 5 and 6, 9 and 10 are required of all Greek students. Courses 17 and 18 are required of all Greek students who take the B. A. and B. S. courses. Courses 3 and 4, 7 and 8, 15 and 16, 19 and 20, are required of those Greek students who intend to enter the University of Athens after graduation.

#### HISTORY AND POLITICAL SCIENCE

Professor FISHER, Professor Scott, Mr.

The aim of the required History courses is to give the students a thorough outline of general history from the earliest times to the present. In the Junior and Senior years opportunity is given for electives in History and Political Science. The object of the complete course is to train students better to understand and appreciate the tendencies and problems of society, and to lay a satisfactory foundation for advanced work leading to the social professions of the law, the civil service, the church, and education. (See Academy History for courses 1-2.)

## 3-4. Medieval and Modern European History to the French Revolution.

Professor FISHER

A study of Medieval Europe, with a special emphasis upon Byzantine History, and Modern European History to the French Revolution in 1789, with emphasis upon the European expansion movement in America. Robinson's "Medieval and Modern Times" will be used as a text-book, with lectures and assigned readings for special periods.

Required of Freshmen.

4 hours weekly, both terms.

#### 5-6. European and American History since 1789.

A study of European and American History from the French Revolution to the present time. Robinson's "Medieval and Modern times" will be used as a textbook, with lectures and assigned readings for the American History work.

Required of Sophomores.

3 hours weekly, both terms.

## 7-8 Modern European Expansion and National Imperialism. Professor Scott

A study (1) of the old colonial movement that led to the discovery and Europeanization of the New World, and to the new and closer relations with the Orient; and (2) of the "New Imperialism" of the 19th Century.

Elective for Juniors, Seniors, and Engineers. 2 hours weekly, both terms.

## 9-10. Industrial History.

Professor Scott

A brief sketch of the ancient and medieval attitude toward industry, and an outline of chief topics in the modern period, are followed by a fuller discussion of the industrial history of the leading nations since the opening of the 19th Century. The treatment lays special stress upon the influence of the economic changes of modern times upon the origin and growth of modern States, and upon the evolution of the liberties of the individual citizen.

Elective for Juniors, Seniors, and Engineers. 2 hours weekly, both terms.

### 11-12. The History of the Near East.

Professor FISHER

After a brief study of the lands and peoples that form the historical back-ground of the question of the Near East in Ancient and Medieval times, the course will trace its development as a critical problem of European politics to the present time.

Elective for Juniors and Seniors.

3 hours weekly, both terms.

## 13-14. Contemporary International Politics and Diplomacy. Professor FISHER

A discussion of some of the important problems of contemporary history, based upon the politics and diplomacy of the chief modern States. Contemporary is not used merely in the sense of current events.

Elective for Juniors and Seniors.

3 hours weekly, both terms.

## 15-16. Comparative Government.

Professor FISHER

A comparative study of the Governments of the leading modern States, with a preliminary discussion of the fundamental principles of government.

Elective for Juniors and Seniors. 3 hours weekly, both terms.

#### LATIN

#### Professor BLACK

The following courses are required of all B. A. students.

- 1-2. Beginning Latin. A thorough drill in the inflections; elementary principles of syntax; reading of easy selections. Text-books: First book in Latin, by Inglis and Prettyman. Nepos' "Lives".
  - 3 hours weekly, Freshman year.
- 3-4. Translation and Composition. Cæsar, The Gallic War, Book I-III. Exercises in Composition from Latin Composition, by Baker and Inglis. Sight translation.
  - 3 hours weekly, Sophomore year.
- 5-6 Translation and Composition. Cicero, The Orations Against Catiline and De Imperio. Exercises in composition from Baker and Inglis, Latin Composition, Sight translation.
  - 3 hours weekly, Junior year.
- 7-8. Translation and Composition. Vergil, The Aeneid, Books I-III. Exercises in composition. Lectures on the History of Latin Literature.
  - 3 hours weekly, Senior year.

#### MATHEMATICS

Professor Barnum, Mr. Larsen, Mr. Scribner.

- 1-2. The object of this course is not only to give Mathematical knowledge but to relate this knowledge to as wide a field of the problems of life as possible.
  - **First Semester.** Text: Unified Mathematics: Karpinski, Benedict and Calhoun. First Nine Chapters. Topics; Algebraic methods applied to problems of Arithmetic, drill in logarithms, graphical methods of Algebra with introduction to Coordinate Geometry, Trigonometric functions with elementary applications and use of tables.

Required of all students.

**Second Semester.** Continuation of same text, Chapters X to XX. Topics. Arithmetical and Geometrical series with applications to interpolation and annuities, binomial series, solution of triangles and trigonometric analysis, coordinate Geometry of the circle and conic sections.

Required of B. S. and C. C. Students. 3 hours weekly, Freshman year.

3. Plane Trigonometry. Required of B. S., C. C. and Preparatory Engineering students. Elective for others.

3 periods weekly, 1 semester, Sophomore year.

4. Analytic Geometry. B. S., C. C. and Ist year Engineers.

3 periods weekly, II semester, Sophomore year.

5-6. Advanced Algebra. C. C. and Ist. year Engineers.

2 periods weekly throughout the year.

3. (a) Spherical Trigonometry with review of plane. Ist year Engineers.

3 periods weekly, Ist Semester.

9-10. Calculus. Required for C. C. and 2nd year Engineers. Elective for others. Pre-requisites: Trigonometry and Analytics.

4 periods weekly, Junior year.

11-12. *Elective*: Differential Equations, Projective Geometry. Theory of Equations, Theory of numbers or other courses that may be offered upon consultation. Open to Seniors and Regular Engineers. Pre-requisite: Calculus. Course to be determined later.

3 periods weekly throughout the year or I semester.

#### MUSIC

Professor Estes, Mr. Colcord.

1-2. Class to be divided according to ability. One division to study three and four part songs, the other two part and unison songs. Listening lessons to be continued with attention to the larger forms, opera, oratorio, the orchestra, and absolute and romantic types illustrated.

1 hour weekly throughout the year.

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3-4. Appreciation of Music. A lecture course designed to assist the student to listen intelligently to good music. Musical devises and forms are illustrated by the Victrola, pianola and the Dodge Organ.

I hour weekly throughout the year.

- 5-6. History of Music. Music 3 and 4 is a pre-requisite for this course. A rapid survey of the history of the eighteenth and nineteenth centuries, noting the influence of one composer on another and watching the steady growth of romanticism.
- 7-8. Harmony. The most important results of the study of harmony are the ability to recognize chords and progressions, to modulate easily from key to key and the ability to harmonize melodies.

**First Semester.**—Scales, intervals, triads and inversions.

**Second Semester.**—Staff work based on figured bass.

- 9-10. Dominant and diminished seventh chords. Elementary composition and analysis.
- Choral Society.—This society of sixty voices, composed of local residents and students who can qualify for membership, aims to present each year one of the larger choral works in the best possible manner. We expect fine results from this organization in the future.

Piano and Violin instruction is based on the "private lessons" method. Practise pianos are available on payment of a fixed fee.

#### PEDAGOGY

Professor Emmanuel..

1-2. History of Education.

Elective — open to Seniors.

1 lecture weekly throughout the year.

3. School Organization.

The principles of School Organization and their concrete embodiment in the various educational systems of Europe and America.

Elective open to Seniors. 1 lecture weekly, I term.

#### 4. Psychological Pedagogy.

An introduction to pedagogy on a psychological basis. The work is based on the study of the physical and psychical development of the child.

Elective — open to Juniors and Seniors. 2 hours weekly, II Term.

### PHILOSOPHY

President GATES, Professor HAGOPIAN, Professor EMMANUEL

The work of this Department is confined to the Junior and Senior years. (See Tabular Classification of Studies). The object of the courses is two-fold: they have a high value as a means of disciplining and developing the mind and of teaching the student to think for himself; and it is of the highest importance, now that philosophical questions are constantly discussed in the periodical literature and even in the daily papers read by the people, that educated young men should be thoroughly grounded in the elements of these subjects and made familiar with the fundamental principles which underlie them.

1. Logic. Professor Emmanuel Creighton's Introductory Logic, supplemented by lectures.

2 hours weekly, Elective, First Term.

3. Psychology.

Professor HAGOPIAN

Required - 3 hours weekly, First Term.

4. Ethics.

Professor HAGOPIAN

Required - 3 hours weekly, Second Term.

5-6. History of Philosophy.

President GATES

Required of B. A. students.

3 hours weekly, Senior year.

8. Modern Philosophers.

Professor EMMANUEL

Wundt, Eucken, Nietzsche, James, Bergson.

2 hours weekly, second term, Senior elective.

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#### PHYSICS

#### Professor DIKE, Mr. XENIS

1-2. Three periods per week are divided between experimental lectures and recitations. The simpler laws of physics are studied, and very complete experimental demonstrations are made possible by the excellent collection of apparatus available.

Text-book – Millikan and Gale's Physics.

Two consecutive recitation periods per week are devoted to a laboratory study of the principles taken up in the class room. The student is required to make careful, quantitative measurements of numerous physical constants, covering the range of mechanics, heat, light, sound, magnetism and electricity; from 30 to 35 experiments are performed by each student. Carefully written reports on each experiment are required. Required of all students. (2 hours of laboratory work count as 1 hour of recitation).

4 hours weekly, Sophomore year.

3—4. These courses supplement and extend the work done in courses 1–2, covering the same ground in a much more intensive manner. They are designed to prepare the student for advanced work in physics and to provide the knowledge of physical principles required by Engineers. Particular attention is given to the solution of problems illustrating the laws studied. Four periods per week are devoted to class-room work, including experimental lectures and recitations, and two consecutive periods to a laboratory course in physical measurements, using instruments of precision and involving the preparation of very carefully written reports.

Text-book – Kimball's College Physics. Elective for regular B. S. candidates who have taken trigonometry. Required of all Engineering students.

5 hours weekly, Junior year.

5. Electrical Measurements. A laboratory course, with occasional lectures, dealing with the precise measurements of resistance, current, potential difference, and other important electrical quantities, the calibrations of instruments, etc. Full and reliable reports on each experiment are insisted upon, including the derivation of formulae, discussion of sources of error and the interpretation of the data recorded.

Elective for students who have completed courses 3-4.

Two afternoons per week, Ist semester, Senior year.

#### TURKISH

HUSSEIN BEY, FERIDOUN BEY, KERAMET BEY, HAZIM BEY.

It is the aim of this department to give the students a thorough knowledge of the Ottoman language with as much knowledge about the geography, history, and laws of the country as possible.

In the vernacular section this instruction is as complete as can be obtained in the official secondary schools of Turkey.

Courses 5-6, 9-10, 13-14, are required of all Turkish students; courses 7-8, 11-12, 15-16, and 17-18 are elective for Turkish students (vernacular section).

A separate elective course is offered to all students who do not speak Turkish as their native tongue (courses 19 to 26 inclusive) which must be preceded by a more elementary course in the Academy (elective section).

- 5-6. Reading selections from modern and ancient authors. Composition. Arabic: grammar and syntax with exercises.
  - 3 hours weekly, Freshman year.
- 7-8. Elective. Translation (English, French, German) Official correspondence.
  - 2 hours weekly, Freshman year.
- 9-10. Study of selections from ancient authors. Exercices in rhetoric and composisition. A short history of Islam. Mussulman states from the rise of Islam to the rise of the Ottomans.
  - 3 hours weekly, Sophomore year.
- 11 12. Modern Turkish literature. Translation (English, French, German); analysis of some modern works. Arabic: Continuation of the work of 7–8. Commercial correspondence. Elective.
  - 2 hours weekly, Sophomore year.
- 13-14. Ottoman History, literary and political, from the beginning to the present day. Composition. Reading from Persian poets.
  - 3 hours weekly, Junior year.
- 15–16. Turkish literature; Turkish Mystics and Romance writers. Translation (English, French, German). A course in Technical Turkish for scientific students. Elective.
  - 2 hours weekly, Junior year.

17-18. History of Turkish Literature, translation (English, French, German). Civic instruction: introduction, judicial organization, criminal law, financial institutions, public instruction, public service organization; religious administrative organizations; civil law, summary of civil proceedings. Study of Mystic Poets. Persian. Elective.

2 hours weekly, Senior year.

#### II. Courses elective for non-Turkish students

(Elective Section)

- 19-20. Reading, memory work, conversation. Dictation. A short practical Turkish grammar. Written and oral exercises, simple composition.
  - 3 hours weekly, Freshman year.
- 21-22. Reading, memory work, conversation. Dictation. Composition, simple letters. Grammar and syntax: noun, adjective and pronoun, with the corresponding forms and rules in Arabic and Persian.
  - 3 hours weekly, Sophomore year.
- 23-24. Reading, memory work. Composition. letter-writing. Grammar and syntax: verbs and indeclinable words, with the corresponding forms and rules in Arabic and Persian.
- 25-26. Reading. Translation. Composition. Letter-writing: commercial and official.
  - 3 hours weekly, Senior year.

#### GRADUATE COURSES

The degree of Master of Arts may be conferred for resident graduate work in the Department of Arts and Sciences. Not all departments offer courses of graduate grade, and even if such courses are offered, it is not always possible to arrange for the necessary instruction in any given year. The following regulations are therefore conditional, in individual cases, upon an understanding with the administration and the departments concerned.

- 1. The degree of Master of Arts is awarded only to those students who have shown marked proficiency in graduate studies. In every case the program for candidates for this degree must form a consistent plan of study and must ordinarily be pursued in more than one department.
- 2. When the course of study proposed by the candidate has been approved by the Faculty, he shall at once register with the College Registrar, giving all information concerning his past and intended work. He shall be assigned to a Committee of the Faculty whose business it shall be to supervise his study, arranging courses, holding occasional conferences, setting examinations or requiring reports as the case may demand.

Teachers to whom the candidate is assigned for instruction, are required to hand in marks on the candidate's work upon the completion of each course. A grade of 8 will be required for passing. The candidate must be inscribed in the catalogue as a candidate for the Master's degree.

- 3. The degree will be conferred upon Bachelor of Arts of this College who have, in residence at the College, devoted at least one year exclusively to graduate study, approved by the Faculty, presented a satisfactory thesis, and passed an oral examination in the presence of the Faculty.
- 4. The instruction approved by the Faculty for the Master's degree must consist wholly of courses of instruction of advanced

grade, or an equivalent, partly of such courses and partly of research or special study carried on under the direction of the head of the appropriate department.

- 5. Every candidate for the Master's degree shall announce to the Faculty in writing, at least eight calendar months before the degree can be conferred, the subjects which be intends to offer for examination. These subjects must be approved by the Faculty. They must include all subjects covered in courses taken at the college during graduate study and all subjects fundamental to the field of study in which the degree is to be given.
- 6. Resident teachers who have taken degrees in courses at Robert College may be granted the Master's degree when they satisfy the Faculty that they have done the equivalent of the work prescribed in Art. 4, provided they register their application and begin their course of study not less than three years before applying for examination.
- 7. Resident candidates for the degree shall be charged the same fees as undergraduates, unless they are resident instructors in the College, in which case, they shall pay a total tuition of Ltq. 10, of which Ltq. 5 must be paid on registration and Ltq. 5 before receiving the diploma.
- 8. Each candidate is required to present to the Library a type-written copy of his thesis, bound in form satisfactory to the Librarian-

#### SCHOOL OF ENGINEERING

#### OFFICERS OF ADMINISTRATION

CALEB FRANK GATES, D.D., LL.D.

GEORGE H. HUNTINGTON, A.B., B.D.,

ERNEST BRADLEE WATSON, Ph. D.

LYNN ADOLPHUS SCIPIO, M.E.

CLARENCE R. JOHNSON, M.A.,

J. EDWARD TODD, B.A.

CASPAR TUYSIZIAN, B.A.,

BERTRAM V. D. POST, M. D.,

President of the College.

Vice-President.

Dean of the College.

Dean of the Engineering School.

Secretary.

Bursar.

Librarian.

College Physician.

#### CORPS OF INSTRUCTORS

Professor of Mathematics. BARNUM, HARRY H., M.A., BLAISDELL, DONALD S, B.S. in C.E. Instructor in Civil Engineering. Instructor in Machine Shop. CACIDELLI, HECTOR, COWELL, CHARLES C., B. of Ph. Ed. Director of Physical Education-Instructor in Wood Shop. DJELAL-EDDIN, Assistant in Wood Shop. \_\_\_\_\_ Professor of Physics. DIKE, PAUL H., B.S., M. S., Ph. D. FISHER, EDGAR J., M.A., Ph. D. Professor of History. KENT, RALPH E., B.A. Instructor of English. Professor of Accounting and Finance. LAY, CHESTER F., B. of Ed. Professor of Economics. MORGAN, ALFRED L., M.A., NINAS, JOHN P., Instructor in Forge and Foundry. PASCHE, ROBERT, B.S. in M.E., Assistant in Chemistry. REYMOND HENRI. Professor in French. SCIPIO, LYNN A., A.B., M.E., Dean and Professor of Mechanical Engineering Instructor in Mechanical Engineering. SEITANIDES, GEORGE, B.S. E.E. and M.E. Instructor in Electrical Engineering. SCOLES, DWIGHT L., M.S., Professor of Chemistry. SCRIBNER, CHARLES H., B.A., Instructor in Mathematics. SOLAKIAN, ARSHAG, B.S. C.E., Instructor in Civil Engineering. TERTZAGHI, KARL, M.E., D.C.E., Assistant Professor of Civil Engineering. TUBINI, BERNARD, A.C.G.I. Professor of Electrical Engineering. WATSON, ERNEST BRADLEE, Ph. D. Professor of English. WOODS, HARLAND, C., B.S., C.E., Professor of Civil Engineering.

#### GENERAL STATEMENT

The future prosperity of the Near East depends upon the development of her natural resources, and in the development of these resources there will be required the services of many well trained engineers. Realizing this need, Robert College began in 1910 to organize a School of Engineering. In the fall of 1912 the first students were registered in the Engineering School and it is now well organized and the best equipped school in the Near East.

The Imperial Ottoman Government, recognizing the need for an engineering school and the exceptional facilities offered by Robert College, has issued an official Iradé recognizing this Engineering School as of university grade, which carries with it all the privileges of students attending such schools.

An effort has been made so to arrange the courses as to secure a proper balance of the educational influences requisite to a successful technical career. The courses include subjects which are most essential to the man who wishes to practice his profession in this country.

The following elements are combined in all the courses:— the discipline resulting from the preparation of recitations from text-books; the benefits of the instructor's point of view as given in lectures; the value of the practical design in the drafting room; the use of instruments of precision in the laboratories; training in accuracy by the use of field instruments; the importance of system in shop tests of commercial equipment; the knowledge of physical limitations as shown by the testing of materials; and the incentive for original work as emphasized in the experimental laboratories. The use of the Library is encouraged, and reports on contemporary engineering practice are discussed before classes of students, the aim being to develop expression and breadth of view.

Numerous inspection trips every school year for the members of the Junior and Senior classes to various industrial establishments, shops, ship yards, docks, etc. complete the practical instruction.

Students are required to hand in carefully written reports of these visits.

There has been a graduating engineering class from the school every year since 1916 and almost without exception these graduates are holding responsible positions.

#### REQUIREMENTS FOR ADMISSION

The work in the Engineering School is of standard grade and for admission to the First Year the prospective student must present credits in such work as is usually required by all first class technical institutions. The requirements are specifically as follows:

- 1. The applicant must be 18 years of age.
- 2. He must have received a diploma from a standard gymnasium or bring satisfactory credits for equivalent work done. Students coming from Robert College must have finished their Freshman Year.
- 3. He is required to pass entrance examinations in the following subjects, considered as prerequisite to the course, viz., English, Algebra, Geometry, Physics and Mechanical Drawing. The ground covered in the above subjects is as indicated in the outlines below.
- 4. Students who do not present a diploma from a standard Lycée or gymnasium will be required to take examinations in the following subjects in addition to those above mentioned: French, History and Vernacular.

#### SESSION

The session of the Engineering School coincides exactly with that of the College.

Students entering for the first time should, before coming, provide themselves with sufficient funds to purchase the necessary drawing instruments and materials.

#### RULES

Printed Rules and regulations are given to all new students at the opening of the year, and each student is held strictly responsible for the knowledge of these rules and the observance of them.

#### CREDITS AND CLASSIFICATION

One credit unit consists of one lecture or recitation per week of 50 minutes for one semester, or one laboratory period of three hours per week for the same time.

Unless excellent reasons can be shown, no student is permitted to register for more than 22 credit units per semester nor less than 18.

A minimum of 160 credit units is required for graduation.

In order to be classed as a first, second, third, or fourth year student in engineering it is necessary to be registered for at least 16 credit units of advanced work in the respective years. For example, a man registered for 8 credit units in preparatory and 12 units in the first year's work is classed as a preparatory student, but if he is registered for 16 units in the first year, he is considered a first year student.

#### EMPLOYMENT DURING VACATION

The aim of the Department is to keep in touch with the various enterprises in the City of Constantinople and the Empire, which will be likely to require the services of engineers; also, an effort is made to secure employment for undergraduate students during their summer vacations.

Letters are received frequently asking for an opportunity to earn funds by working in the Department while the school is in session, and we are glad to assist students in this way whenever we can do so, but the amount of work available is limited and the applicants are numerous, so that income from this source should not be depended upon.

#### PREPARATORY YEAR

Requests for admission to the Department are often made by students who are deficient in one or more of the subjects required for entrance. Courses are arranged so that such applicants can make up their deficiences, and in addition they are assigned to such work in advance as they have time for and are fitted to pursue.

The more common deficiencies are those of English, Mathematics, and Physics.

Arrangments can be made whereby any other subject can be taken, besides the above mentioned, if so desired. All the preparatory subjects except English are taken with the regular College classes. For further information see the Collegiate Department.

#### SUMMER COURSES

Arrangement has been made to offer courses during the summer in order to meet the needs of certain students who could enter with full engineering credit at the beginning of the year, provided there were means whereby they could pursue such courses as English, Mechanical Drawing, etc. for a reasonable length of time before entering and thus prepare themselves for the regular examinations.

#### POWER HOUSE

The Power House is provided with two 150 horse-power Babcock and Wilcox water-tube boilers made to generate steam at 150 pounds pressure. The feed water is furnished either by a Worthington 6 X 4 X 7 ½ center, outside packed feed pump, or an injector; also, if working at 65 pounds pressure or less, the feed water can be supplied by the reservoir direct. It is heated for the boiler by a 300 horse-power Cochrane Heater.

The Engine Room is equipped with a 20 K.W., 60 cycle, 3 phase, 220 volt generator direct-connected to a 30 horse-power vertical engine; the power plant provides the heat for the College

buildings and sometimes the Electric light; it is also used for experimental purposes. It is well equipped with all the instruments and accessories necessary to its operation.

#### ENGINEERING SHOPS AND LABORATORIES

The Engineering Building is erected on the south slope of the campus. It is a four-story building, so arranged on the side hill that each floor has an entrance from the ground. The upper or fourth floor is entered from the campus level.

The plan of the building completed consists of two wings, each four stories high, joined by a main building two stories high and facing the campus. The West Wing and first story of the East Wing are completed and in use.

#### SHOP EQUIPMENT

The Carpenter and Pattern Shop is located on the fourth floor. This shop is equipped with the latest type of electrically driven woodworking machinery. The equipment includes one 30 inch planer, one 16 inch jointer, one 20 inch rip and cross cut saw, one combined shaper, tenoning, chain mortising and slot boring machine, one 36 inch jig saw, band saw, six turning lathes, a universal trimming machine, tool grinder, and small drill press. Work benches and tools are provided for the use of students.

The Machine Shop is located on the third floor and contains some of the very finest metal working tools manufactured, including 8 lathes of various types, a planer with 8 foot bed, a Gould and Eberhard shaper, a Cincinnati milling machine with all attachments, a large drill press, a small sensitive drill, a wet grinder, and also all necessary tools and equipment for doing all classes of machine shop work.

The Foundry is located on the second floor and is equipped with a 36 inch Whiting Cupola, brass furnace, core oven, flasks, blowers, and all necessary moulding tools. The Foundry is equipped to make castings up to a weight of one and one-half tons.

The Forge Shop is located on the lowest floor and contains one instructor's forge and fifteen students' forges, all of which are down draft and have electrically driven fans for air supply and the removal of gases. The Forge Shop is also equipped with punch, shear and power hammer.

#### CIVIL ENGINEERING

The four-your course leading to the degree of Bachelor of science in Civil Engineering is designed to afford a thorough analytical training in construction and management. The course contains numerous and extended practical exercises in those matters which pertain to the profession of the civil engineer in relation to all classes of structures and public works and in connection with the various developments and applications of power by the use of steam, electric, water and air motors. This course is also designed to be an educational preparation for those duties or functions of an executive character whose discharge, in connection with the management of public or other works, requires, or is rendered more efficient through, a thorough knowledge of civil engineering. The breadth and nature of this educational training adapts it no less efficiently to the purposes of those who intend to follow callings not of an engineering character, but which may be related more or less to manufacturing, to structural matters, or to the development and application of power. The instruction covers comprehensively the subjects of surveying, road and railroad engineering, water supplies of cities and towns, irrigation, sanitary engineering, including sewage disposal, both graphic and analytic treatment of all metallic structures, foundations, retaining and reservoir walls, high masonry dams, sewer systems, hydraulic engineering, rivers and harbors, pumping engines, hydraulic, steam and electric motors.

## EQUIPMENT

The equipment of this course consists of engineers' transits, one of which has a solar attachment, a precision pantograph, levels,

compasses, plane table, rolling planimeter, current meter with a 400 foot cable, hand level, steel protractor, sextant, level trier, Aneroid barometer, beam compass, chains, rods, tapes, pins, etc. The department has also, a large topographic drawing table and geological survey maps.

The laboratory for Testing Materials contains a 70,000 pound Riehle Universal Testing Machine, Olsen torsion machine, vicat needle, Cilmore needles, briquette moulds, etc. The laboratory has all the necessary apparatus for making complete tests of cement, concrete, steel and wood beams, paving brick, stone and all other building materials.

There is also apparatus for Testing Soils for foundation work. Work in the Hydraulic Laboratory consists of tests of water flowing over weirs, through nozzles, loss of head in pipes due to friction, calibration of meters and tests of Pelton wheel, centrifugal and reciprocating pumps.

#### ELECTRICAL ENGINEERING

The prescribed course leading to the degree of Bachelor of Science in Electrical Engineering requires four years for its completion, and is designed for the education of those who intend to practice the profession of Electrical Engineering, either as engineers, managers or experts in industrial enterprises.

The instruction comprises the important branches of theoretical and applied electricity; also the fundamental and collateral subjects, which have been found by experience to be required by the electrical engineer, as, for example, mathematics, physics, chemistry, drawing, mechanical engineering, including boilers, gas producers and shop work; also such general engineering subjects as construction in wood, masonry, iron and steel.

The graduate in Electrical Engineering is accordingly provided not only with a thorough knowledge of the principles and applications of electricity; but also with such a broad and liberal education in the allied sciences as will prepare him for the demands likely to be made upon him in connection with the practice of his profession.

#### EQUIPMENT

Among the equipment is to be found, a 10 K.W. rotary converter set, a General Electric Co. oscillographe, 2 Transformers of 5 Kilovolt amperes, one High Tension 30,000 volt Transformer, 1 mercury-arc rectifier, one Evershed improved photometer bench, two G.E. Tramcar motors, one interpole 3 K.W. compound Generator, one 3.5 B.H.P. shunt D.C. Motor, 3 induction motors, one 150 Amp. Hour storage battery, a complete set of recording and testing instruments.

#### MECHANICAL ENGINEERING

The regular four-year course, leading to the degree of Bachelor of Science in Mechanical Engineering, offers a thorough basic training in the design, construction and operation of all classes of standard and special machinery, and their economic application to ships, mills, shops, power plants, etc., as well as in the technical and executive management of the manufacturing and transportation industries. To this end the course of instruction is as broad as is consistent with the directness of its purpose. The Mechanical Engineer must not only be grounded in the fundamental scientific basis of his profession, and so trained as to be capable of applying this to both the technical and commercial aspects of industrial problems, but his immediate usefulness upon graduation demands that a considerable portion of the instruction be concerned with the practical application of the principles taught.

#### EQUIPMENT

The entire Power House equipment is so arranged that it can be used for laboratory testing purposes. It includes, in addition to the Babcock and Wilcox boilers, the pumps, condenser and feed water heater; two horizontal steam engines which can be run either simple or compound, condensing, a self-contained boiler, and engine

steam plant, and a 27 horse power Sturtevant Steam Turbine. There is also an 8 horse power Otto Engine, a Fairbanks Morse 10 horse power 2 cycle oil engine, and a 10 horse power engine, valves and cylinders sectioned, a Ford automobile chassis, equipped for testing, and an 8 cylinder 75 Horse Power Curtis aeroplane motor, a Parr calorimeter, an American gauge tester, a belt transmission dynamometer, a cradle dynamometer, and all the necessary indicators, gauges and instruments for measuring the power output of the machines. There is an excellent opportunity offered to study heating systems because of the wide variety of types in use in the various parts of the College.

#### MINING ENGINEERING

There are many evidences that the Turkish Empire possesses extensive coal and mineral deposits which would add greatly to its wealth if properly worked. It is with a view to preparing young men to develop these resources that the course in Mining Engineering was arranged. The length of the course is four years, and on its completion the degree of Bachelor of Science in Mining Engineering is granted.

Many of the subjects in this course are the same as those in Civil Engineering, but greater emphasis is laid on Chemistry, Geology, Metallurgy, Mineralogy, assaying and allied subjects.

In this course, it is intended to train men to undertake the development of mineral properties, the design and construction of mine plants, and to manage mines.

Two students have graduated from this course but it will not be given in the future until there is a larger demand for it.

#### LIST OF TEXTS USED IN THE ENGINEERING SCHOOL

#### Name of Text

Mechanical Drawing

Mechanism

Descriptive Geometry

Heat Engines

Thermodynamics

Machine Design

Gas Engines

Steam Turbines

Mechanics

Surveying

Surveying Manual

Railway Location and Estimates

Railroad Curves and Earthwork

Railroad tracks and trackwork

Freight Terminals and Trains

Elements of Highway Engineering

Modern Tunnel Practice

Materials Laboratory Manual

Materials of Construction

Engineering Geology

Cambria Handbook

Steel Mill Buildings

Modern Framed Structures

Reenforced Concrete

Masonry Construction.

Hydraulics

Sewerage

Public Water Supplies

Irrigation Engineering

Waterpower Engineering

A. C. and D. C. Engineering

Engineering of Power Plants

Contracts and Specifications

Electric Railway Engineering

Electric Lighting

#### Author

FRENCH.

SCHWAMB, MERRIL & JAMES.

CHURCH & BARTLETT.

HIRSHFIELD & BARNARD.

GREENE.

LEUTWEILER.

STREETER.

ROE.

FULLER & JOHNSON.

Breed & Hosmer.

Pence & Ketchum.

LAVIS.

ALLEN.

TRATMAN.

DROEGE.

BLANCHARD.

STAUFFER.

HATT & SCHOFIELD.

MILLS.

RIES & WATSON.

CAMBRIA Co.

KETCHUM.

JOHNSON BRYAN & TURNEAURE.

HOOL.

BAKER.

MERRIMAN.

FOLWELL

TURNEAURE & RUSSE

WILSON & DAVIS.

MEADE.

FRANKLIN & ESTEY.

FERNALD & ORROK.

MEADE.

HARDING.

CROFT.

# Program

#### PREPARATORY YEAR

No.	First Semester		No.	Second Semester	
51 Di	rafting (1)	1 - 2	52 D	rafting (2)	1 2
Id Er	iglish	17	Id E	nglish	17

Students who know English but are deficient in Mathematics or science may substitute First Year English for English Id and take additional courses in Mathematics or Science in the College.

#### CIVIL ENGINEERING COURSE

#### First Year

No.	First Semester		No.	Second Semester	
13	Plane Trigonometry	3	14	Analytic Geometry	3 – –
61	Wood Working	1 - 2	62	Wood Work and Foundry	$1 - 2^{-1}$
21	General Chemistry	2 - 2	22	General Chemistry	$2-2^{\circ}$
7	English	5	8	English	5 –
11	Advanced Algebra	2	12	Advanced Algebra	2
53	Drafting (3)	1 2	16	Drafting (4)	1 - 2
		20			20

**Note.**— The first column of the two indicates the number of recitations per week and the second the number of three hour periods given to work of a laboratory character in the respective subjects.

**Note.**— The faculty reserves the right to change the position of the various subjects in the courses and not to give certain courses if the demand, in their opinion, will not warrant it.

#### Second Year

No.	First Semester		No.	Second Semester.	
17	Calculus	4	18	Calculus	4
63	Forging and Machine Work	1 - 2	102	Plane Surveying	$2 - 2^{-1}$
31	Physics	4 - 1	32	Physics	4 - 1
23	Eng. Chemistry	1 - 2	130	Excavation and Tunneling	3
9	English	2 – –	72	Geology	3 - 1
71	Geology	3 - 1			
		21			20

Electives: Economic History 2, Mechanism 2-1

#### Third Year

No. 111 131 141 101 41 205	First Semester  Mechanics (Technical) Materials of Construction R. R. Curves Top. Survey & Mapping Economics Electrical Laboratory	4 2 1 1 - 3 3 1 - 1	No. 112 134 144 142 150 42 114	Second Semester  Mechanics (Applied) Materials Testing Roads and Pavements R.R. Location and Const. Hydraulics (Theory) Economics Graphic Statics & Timber Framing	$ \begin{array}{r} 4 \\ 2 \\ 2 \\ 2 - 2 \\ 3 \\ 3 \\ \hline 2 - 1 \\ \hline 2 1 \end{array} $
		Fourth	Yea	r	
No.	First Semester		No.	Second Semester	
43	Accounting and Finance	2-0	44	Accounting and Finance	2- 0
121	Reinforced Concrete	$\frac{2}{2} - \frac{3}{3}$	132	Masonry and Foundations	3 - 1
151	Hydraulic Laboratory	0-2		Power Laboratory	0 - 2
115	Theory of Structures	4 - 0	118	Bridge Design	0 - 3
45	Engineering Business and		154	Water Supply	2- 0
	Ethics	3 - 0	146	Railway Maintenance and	
161	Seminar	1 ()	170	Design	2 - 0
			162	Seminar	$\frac{1-0}{}$
		17			16
		OPTI	ONS	3	
153	Sewerage and Sewerage		158	River and Harbor Improve-	
	Disposal	2- 0		ment	2-1
157	Water Power Engineering	2 0	148	Railway Yard and Termin-	
75	Sanitary Science	2- 0		als	2 - 0
149	Railway Signals	2 - 0	156	Irrigation Engineering	2 - 0

#### ELECTRICAL ENGINEERING COURSE

#### First Year same as Civil Engineering

#### Second Year

No.	First Semester		No.	Second Semester							
17	Calculus	4	18	Calculus	4 – –						
63	Machine Work Forging	1 - 2	64	Machine Work	1 - 2						
31	Physics	4 - 1	32	Physics	4 - 1						
23	Eng. Chemistry	1-2	102	Plane Surveying	2-2						
9	English	2	54	Mechanism	2 - 1						
301	Materials of Engineering	3 <b>-</b>									
		20		·	19						
		Third	Year	•							
No.	First Semester		No.	Second Semester							
111	Mechanics (Technical)	4	112	Mechanics (Applied)	4 – –						
303	Heat Engines	4 – –	150	Hydraulics	3						
41	Economics	3 – –	42	Economics	3						
201	D. C. Engineering	3	134	Materials Testing	-2						
203	Electrical Measurements	2	202	A. C. Engineering	3						
307	Power Laboratory	2	56	Machine Design	2 - 2						
		18			19						
			Fourth Year								
		Fourth	Yea	r							
No.	First Semester	Fourth	Yea	<b>r</b> Second Semester							
No. 43	First Semester Accounting and Finance	Fourth  2	No.		2						
		2	No.	Second Semester							
43	Accounting and Finance Engineering Business Ethics Seminar	2 3 2	No. 44 310 208	Second Semester  Accounting and Finance Power Laboratory	2						
43 45	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering	2 3 2 4	No. 44 310 208 210	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction	-2 $32$ $22$						
43 45 361 231 205	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4 2	No. 44 310 208 210	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation	-2 $332$ $22$						
43 45 361 231	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4	No. 44 310 208 210 212	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity	-2 $332$ $22$						
43 45 361 231 205	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4 2	No. 44 310 208 210 212	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting	-2 $332$ $22$ $22$						
43 45 361 231 205	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4 2	No. 44 310 208 210 212	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity	-2 $332$ $22$						
43 45 361 231 205	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4 2	No. 44 310 208 210 212	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting	-2 $332$ $22$ $22$						
43 45 361 231 205	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4 2	No. 44 310 208 210 212 216 374	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting Power Plant Design	$     \begin{array}{r}       -2 \\       \hline       3 \\       2 \\       \hline       2 \\       1 - 2     \end{array} $						
43 45 361 231 205	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory Hydraulic Laboratory	2 3 2 4 2 2 OPTI	No. 44 310 208 210 212 216 374	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting Power Plant Design	$     \begin{array}{r}       -2 \\       \hline       3 \\       2 \\       \hline       2 \\       1 - 2     \end{array} $						
43 45 361 231 205 151	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory	2 3 2 4222 OPTI 2-	No. 44 310 208 210 212 216 374 O N 9	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting Power Plant Design	$     \begin{array}{r}       -2 \\       3 \\       2 \\       \hline       2 \\       1 - 2 \\       \hline       16     \end{array} $						
43 45 361 231 205 151	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory Hydraulic Laboratory	2 3 2 4222  OPTI 2- 2-	No. 44 310 208 210 212 216 374 O N 9 214 218	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting Power Plant Design	$     \begin{array}{r}       -2 \\       3 \\       2 \\       \hline       2 \\       1 - 2 \\       \hline       16     \end{array} $						
43 45 361 231 205 151 209 157	Accounting and Finance Engineering Business Ethics Seminar Power plant Engineering Electrical Laboratory Hydraulic Laboratory  Wireless Telegraphy Water Power Engineering	2 3 2 4222  OPTI 2- 2-	No. 44 310 208 210 212 216 374 O N 9 214 218	Second Semester  Accounting and Finance Power Laboratory Electrical Power Applications Electric Traction Distribution and Generation of Electricity Electric Lighting Power Plant Design  Electrical Design Power Station Management	$     \begin{array}{r}       -2 \\       \hline                             $						

# MECHANICAL ENGINEERING COURSE

## First Year same as Civil Engineering

#### Second Year

No.	First Semester		No.	Second Semester	
17 63 31 23 9 301	Calculus Machine Work Forging Physics Chemical Analysis English Materials of Engineering	$     \begin{array}{r}       4 \\       1 - 2 \\       4 - 1 \\       1 - 2 \\       2 \\       \hline       20     \end{array} $	18 64 32 102 54	Calculus Machine Work Physics Plane Surveying Mechanism	4- 0: 1- 2: 4- 1 2- 2: 2- 1
		Third	Year	•	
No.	First Semester		No.	Second Semester	
111 303 41 201 203 307	Mechanics (Technical) Heat Engines Economics D. C. Engineering Electrical Measurements Power Laboratory	$     \begin{array}{r}       4 \\       4 \\       3 \\       3 \\       2 \\       \hline       2 \\       \hline       18     \end{array} $	112 150 42 202 134 56	Mechanics (Applied) Hydraulics Economics A. C. Engineering Materials Testing Machine Design	$     \begin{array}{r}       4 \\       3 \\       3 \\       3 \\       - 2 \\       2 - 2 \\     \end{array} $
		Fourth	Yea	r <sup>3</sup>	
No.	First Semester .		No.	Second Semester	
43 45 361 231 305 57 151		$     \begin{array}{r}       2 - \\       3 \\       1 - \\       4 \\       4 \\       2 \\       2 \\       \hline       18     \end{array} $	44 308 310 362 374	Accounting and Finance Power Laboratory Heating and Ventilation Seminar Power Plant Design	$     \begin{array}{r}       2 \\       2 \\       2 \\       1 \\       1 - 2     \end{array} $
	Electives :			Electives:	
73 381 375 373 377 157	Sanitary Science Steam Boilers Gas Producers Locomotives Factory Organization and Accounting Water Power Eng.	2 2 2 2 2 3	304 306 370 382 380 372 378 234	Internal Combustion Engine Steam Turbines Gas Engine Design Retrigeration Scientific Management Steam Engines Design	2 2 2 2 2

# CONDITIONS UNDER WHICH ADVANCED DEGREES WILL BE GIVEN IN THE ENGINEERING SCHOOL

1. Students who have received the degree of Bachelor of Science in any of the Engineering Courses of the Robert College Engineering School or from another school of equal rank, will be granted the degree of Master of Science on the condition that they spend one year studying in residence, finishing the equivalent of 30 hours work, and presenting an acceptable thesis at the end of that time. A maximum of ten hours credit may be given for thesis work at the discretion of the Faculty.

Teachers in the department who have received the B. S. degree in Engineering may, by following a prescribed course of study, equivalent to 30 hours work, and presenting a suitable thesis, receive the degree of M. S. at the end of three years. A certain amount of credit will be given for suitable courses taught.

- 2. There are three ways of obtaining the professional degree of C.E., M.E., E.E., etc.:
- a) Students who have taken the M.S. degree and who have had in addition three years of successful practice in the Engineering field, one of which was in responsible charge of work, will be granted a degree on submitting a suitable thesis.
- b) Students who have received the B.S. degree in Engineering at Robert College or a school of equal rank, may be granted a professional degree at the end of four years on the condition that they spend one year in residence study and submit a suitable thesis. The remaining three years must have been spent in successful practice, one of which was in responsible charge of work.
- c) Students who have received the B. S. degree, for conspicuous service in the profession, and on presentation of an acceptable thesis, may be granted the professional degree at the end of five years receiving the Bachelor's degree.

- d) Teachers in the department who have received the M. S. degree, under the conditions mentioned above, will at the end of one year, on presentation of a suitable thesis, be granted a professional degree.
- 3. All work for advanced degrees shall be carried out under the direction of a committee appointed from the Faculty. Candidates should make known their intentions by addressing a letter to the Dean before the opening of school, of the year in which the candidate expects to take his degree.
- 4. Theses should be submitted by May first preceding the time of the granting of degrees.
- 5. Resident candidates for the degree shall be charged the same fees as under-graduates, unless they are resident instructors in the College, in which case they shall pay a total tuition of Ltq. 10., of which Ltq. 5 must be paid on registration and Ltq. 5 before receiving the diploma.
- 6. Each candidate is required to present to the Library a type-written copy of his thesis, *bound in form satisfactory to the Librarian*.

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# ENROLMENT OF STUDENTS, 1921-1922

REGUI GRADUATE COLLEGIAT SENIO JUNIO	RATORY LAR E COURS E DEPA R C R OMORE MAN	EES  RTMEN	T:				18 47 31 30 36 36 4 TOTAL	137 396 605
BOARDING DAY STUDI		• •	• •	Engineering 37 28	3 4 	College 72 65	Academy 191 205	Total 303 302
Greek Armenian Turk Israelite . Bulgarian Russian . Albanian Persian . American Syrian . Circassian Swiss Yougo-Slav Croatian Roumanian Arab French . Georgian		Total		In by Nate   Ingineering   16   16   5   9   -   13   1   -   1   -   1   -   1   2   65		College 59 45 6 10 6 3 2 - 2 1 - 1 - 1 - 137	Academy 159 113 61 20 15 11 10 3 1 1 1 396	Total 236 177 73 39 21 27 13 3 5 2 1 1 1 1 1 2 605

#### Classification by Religion

				Engineering	Graduate	College	Academy	Total
Orthodox	• •	• •		31	2	68	183	284
Gregorian				14	2	36	97	149
Moslem	. •			5	1	8	72	86
Hebrew	• .			9	~-	9	20	38
Protestant				5	2	13	19	39
Catholic				1	<u>*~-</u>	3	5	9
	~	To	tals	65	7	137	396	605

## Classification by Citizenship

				Engineering	Graduate	College	Academy	Total
Ottoman	•	• •		32	6	98	252	388
Hellenic	. •	. •		4	-	17	68	89
Russian	• •			19		4	23	46
Bulgarian			• •		_	7	20	27
Italian .				1	_	1	4	6
Albanian						2	8	10
Persian				1	<del></del>	1	4	6
British .						_	5	5
Yougo-Slav	• •			_			2	2
Polish .		• •		1	_	_		1
Roumanian				1		2	3	6
U. S. A.	. •			1	1	2	2	6
Spanish				_		_	1	1
Swiss .			• •	1	_		<del></del>	1
Abyssinian	• •	• •		1	_	<del></del> ,		1
Armenian				_		2	2	4
Egyptian					<u> </u>	1	_	1
Georgian			• •	2	_	_	2	4
Austrian				1		<del></del>		1
			Totals	65	7	137	396	605

#### Geographical Distribution

Constantin	opl	le	•			•	•	•	•				465
Turkey (O	utsi	ide of	Co	nst	antinopl	e) .	•	•	•		•	• •	31
Greece	•	•	•	•	. •	•	•	•	•		•		48
Bulgaria		•	•	•		•	•	•		•	•		24
Russia	•	•	•	•		•	•	•	•	•	•		2
Roumania		•	•	•		•	•	•	•		•		14
Albania	•	•	•	•		•	•	•	•	•	•		10
Egypt	•	•	•	•		•	٠	•	•	•	•	• * •	2
Yougo-Slav	via		•	•		•	•	•	•	•	•	• •	2
Abyssinia	•	•	•	•		•	•	•	•	•	•		1
Persia	•	•	•	•		•	•	•	٠	•	•		1
Armenia	•	•	•	•		•	•	•		•	•		1
Czecoslova	kia	i	•	•		•	•	•	•	•	•	• •	1
United Sta	tes		•	•		•	•	•	•	•	•		2
Italy •	•	•	•	•		•	•		•	•	•		1
-												Tota	I 605

#### **CLASSIFICATION BY COURSES**

Class	Arts B.A.	Science B. <b>S</b> .	Commerce B. S.	C C. B, S.	Special	Academy	Prep. Eng.	Reg. Eng.	Total
Freshman	4	8	20	4		·		27	63
Sophomore	5	6	21	4				8	44
Junior	5	2	21	2				7	37
Senior	7	2 -	20	2				5	36
Total	21	18	82	12				47	180
Unclassified					4	396	18		418
Graduate	4					,		3	7
Grand Tota	1 25	18	82	12	4	396	18	50	605

## Degrees Conferred 1921—1922

Bachelor of Arts	7
Bachelor of Science	. 4
Bachelor of Science in Commerce	. 20
Bachelor of Science in Civil Engineering	2
Bachelor of Science in Mechanical Engineering	6

#### **REGISTRATION STATISTICS**

#### No. Of Students Registered Last 21 Years

1901 - 02	308	1912 - 13	476
1902 - 03	318	1913 - 14	550
1903 - 04	328	1914 - 15	441
1904 - 05	349	1915 16	478
1905 06	373	1916 - 17	546
$1906 \cdot \cdot 07$	409	1917 - 18	395
1907 - 08	446	1918-19	521
1908 09	454	1919 - 20	662
1909 - 10	408	1920 - 21	670
1910 11	432	1921 - 22	605
1911 - 12	413		

Total Number of Alumni-846

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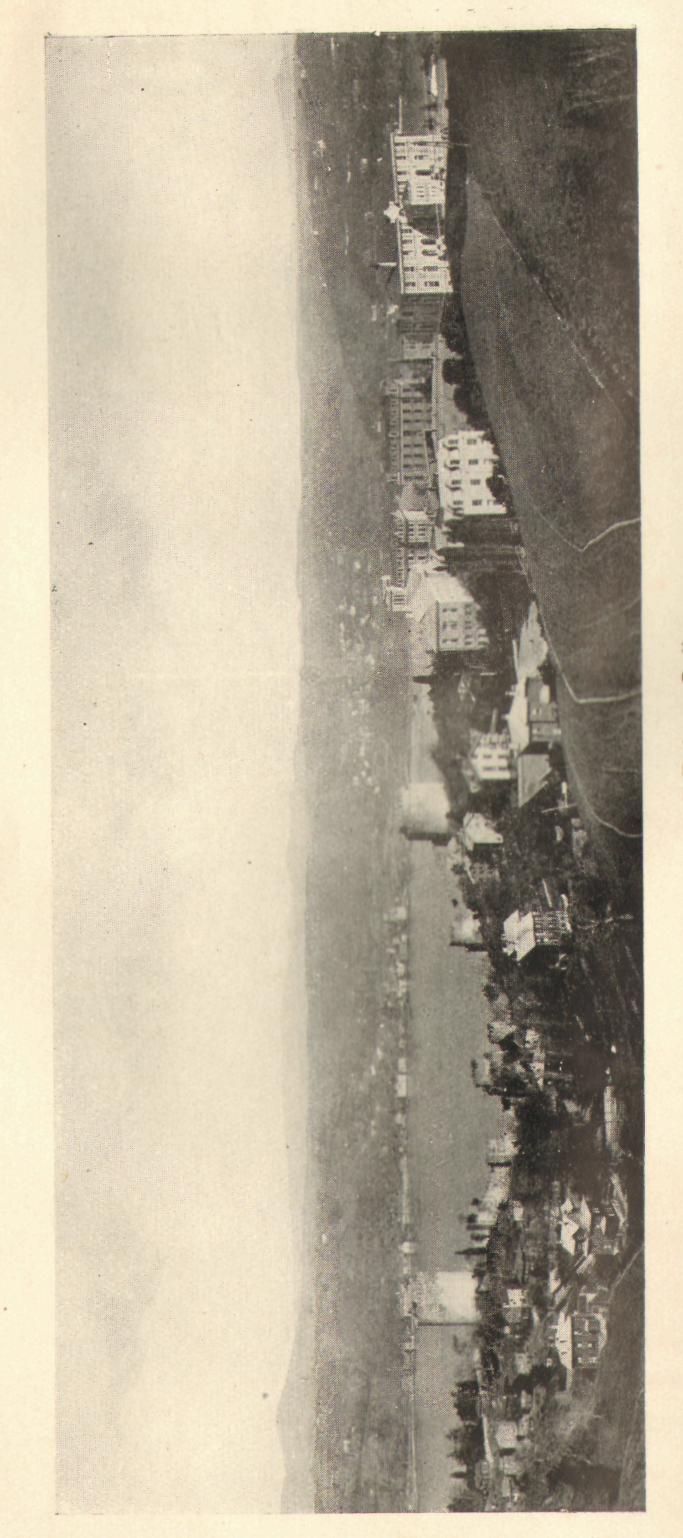
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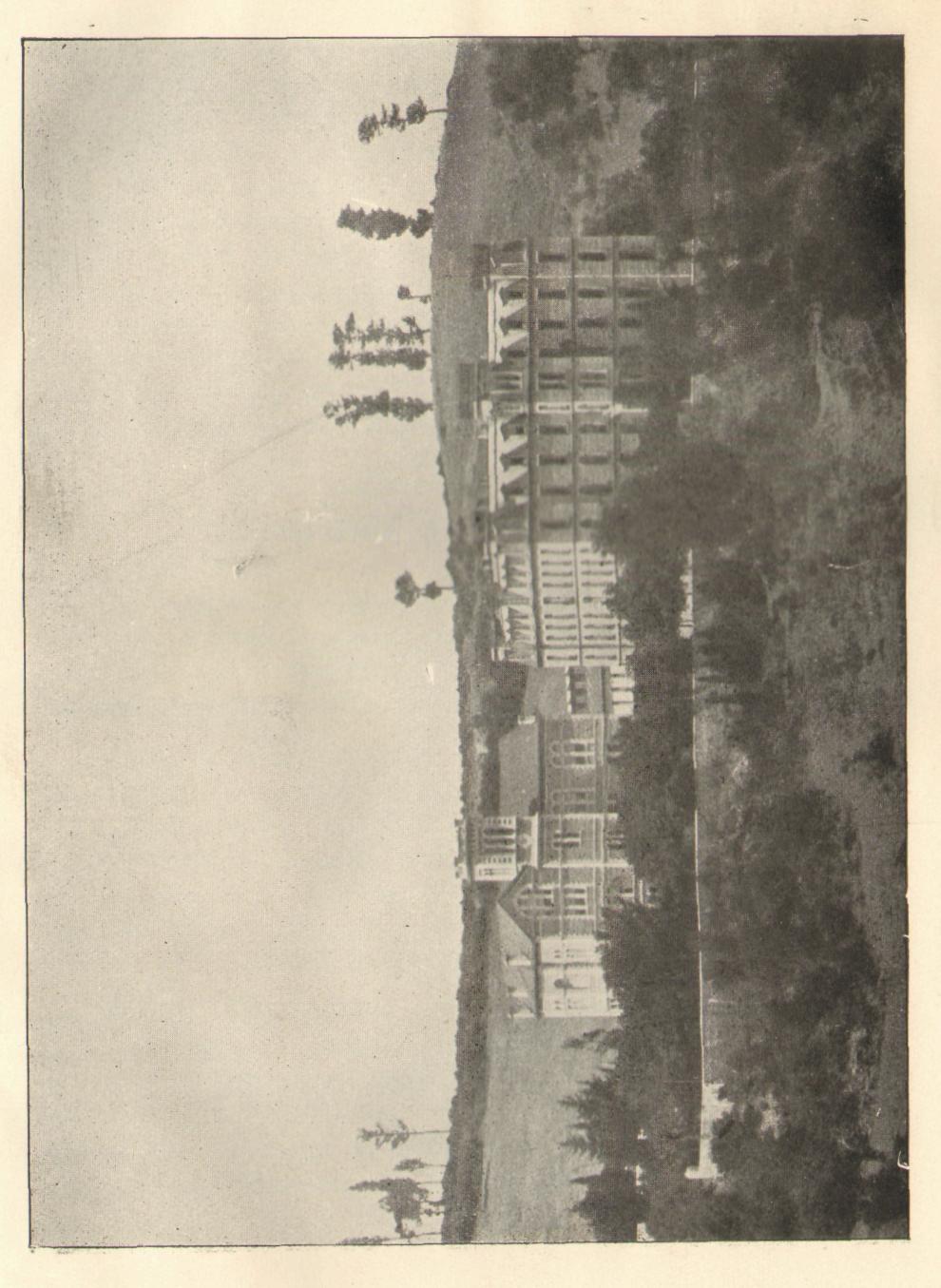
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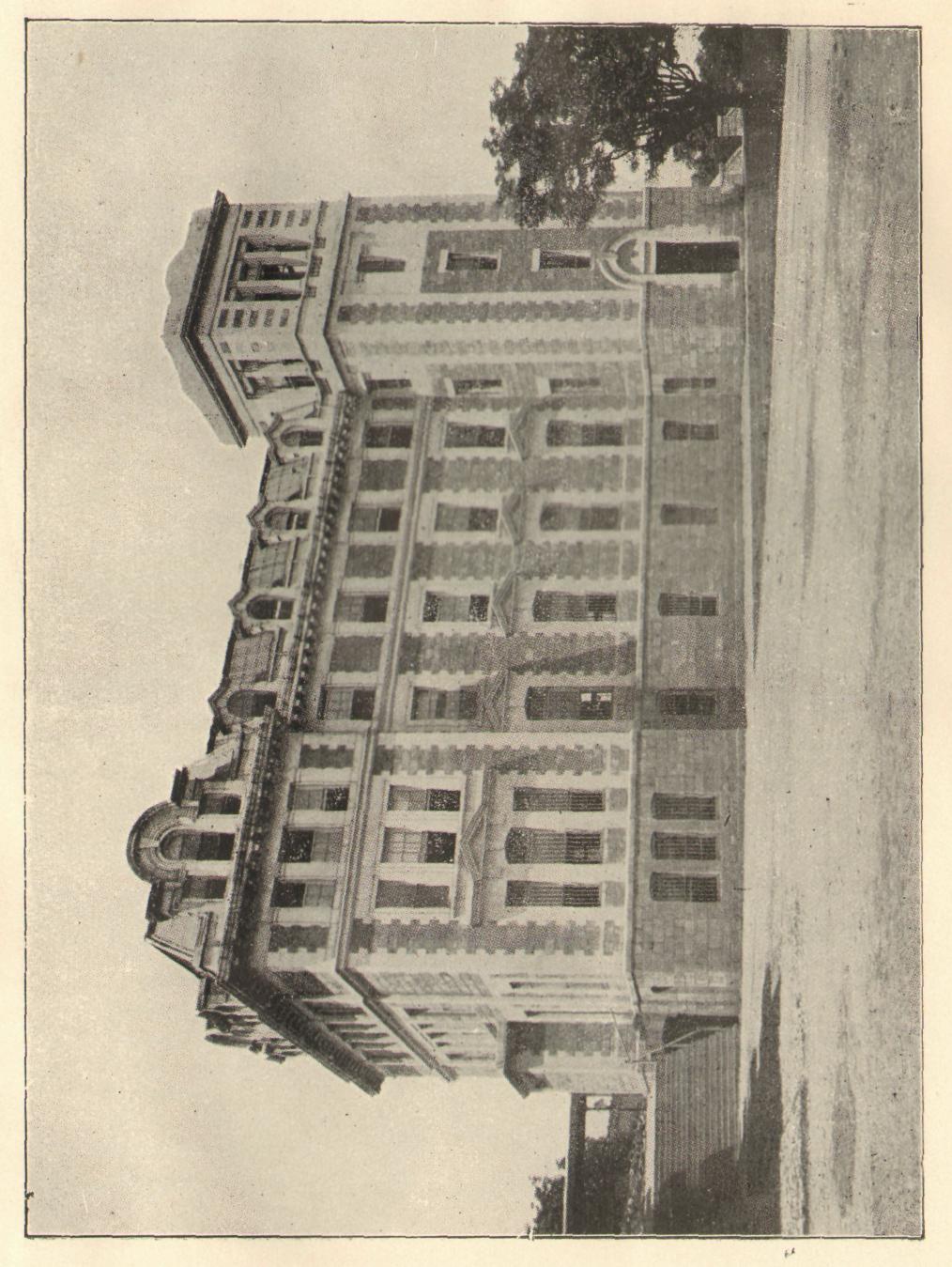
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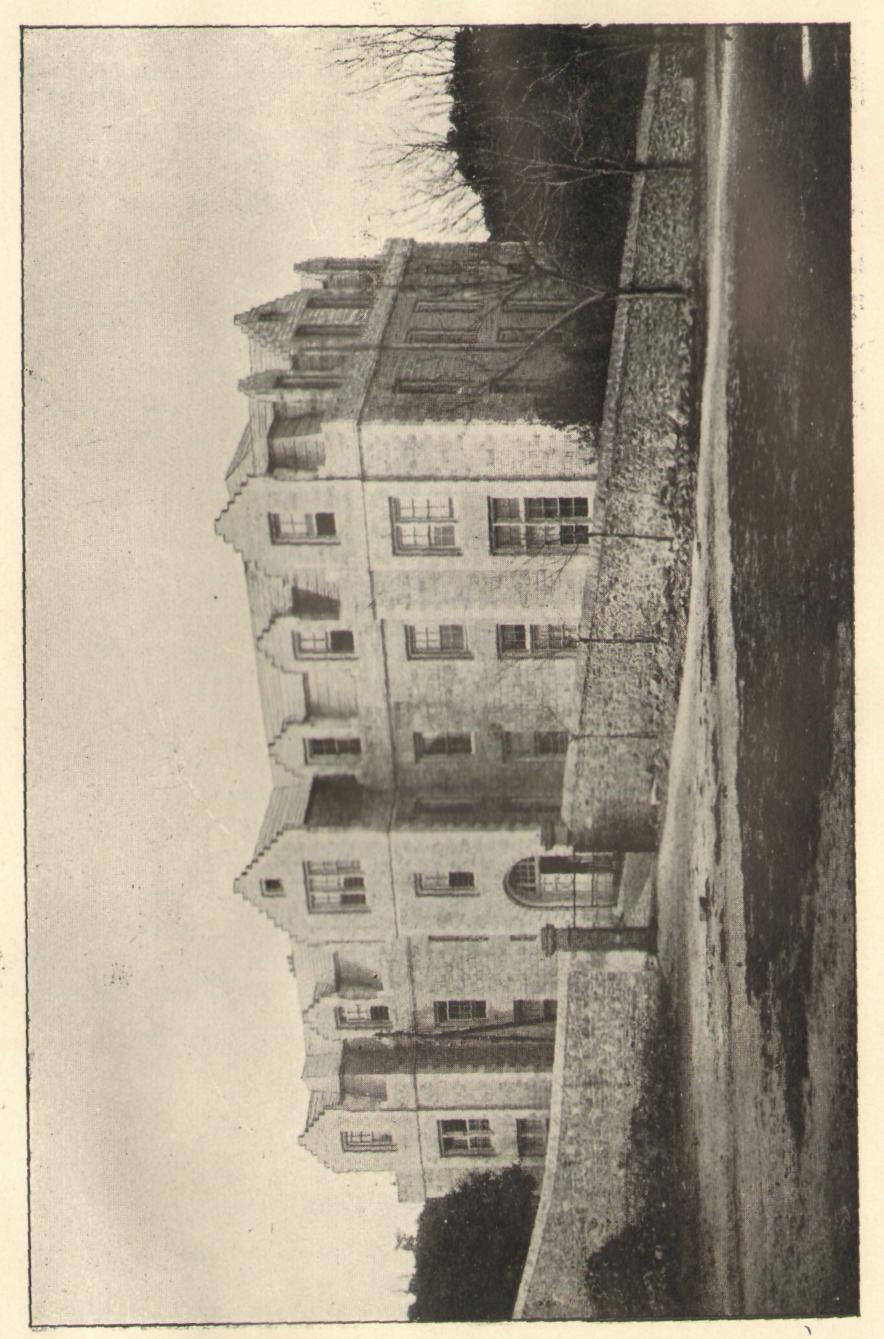


Panorama of Robert College.



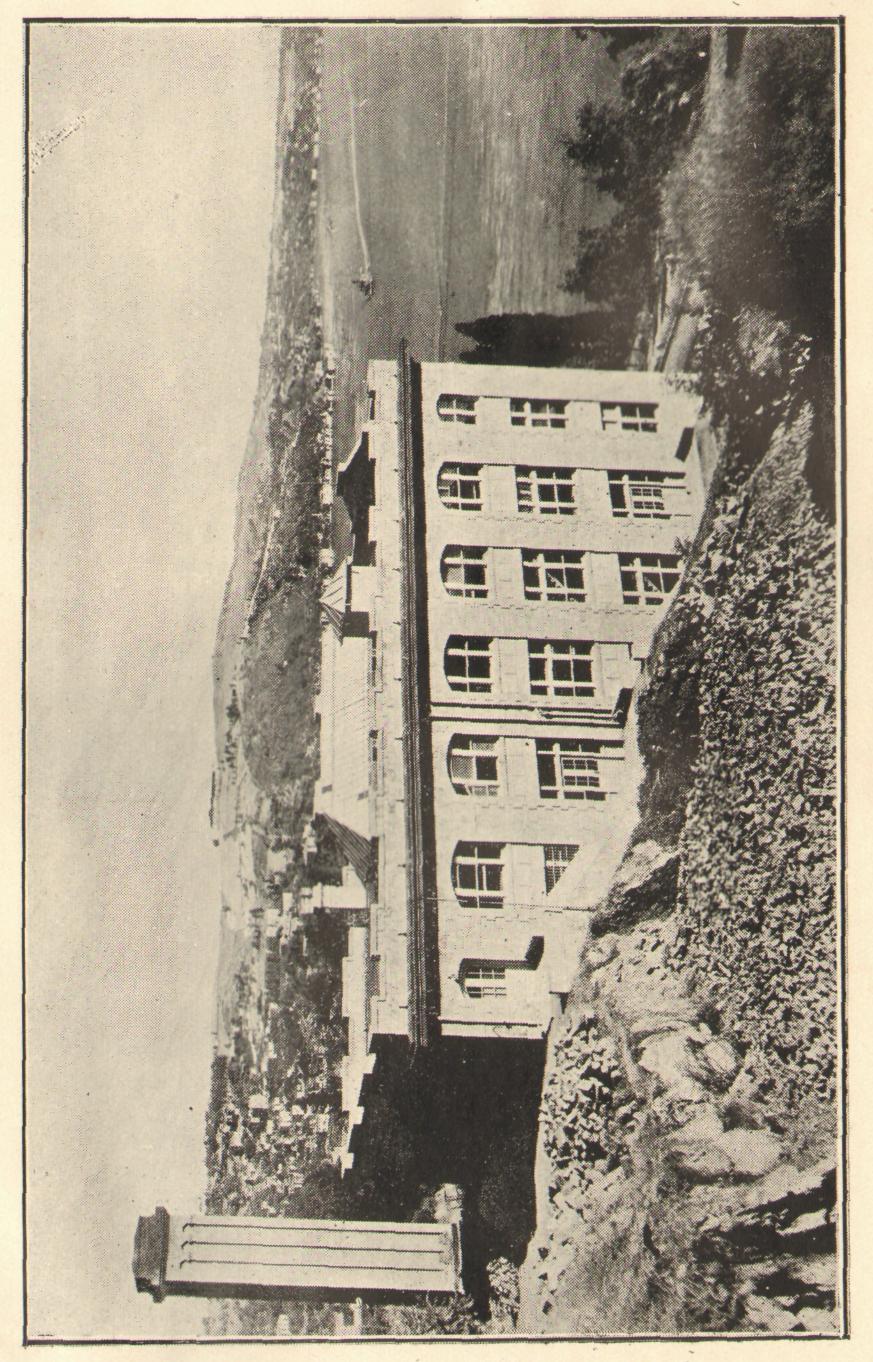
Albert Long Hall.





Theodorus Hall,

Anderson Hall,



West Wing of Engineering Building.